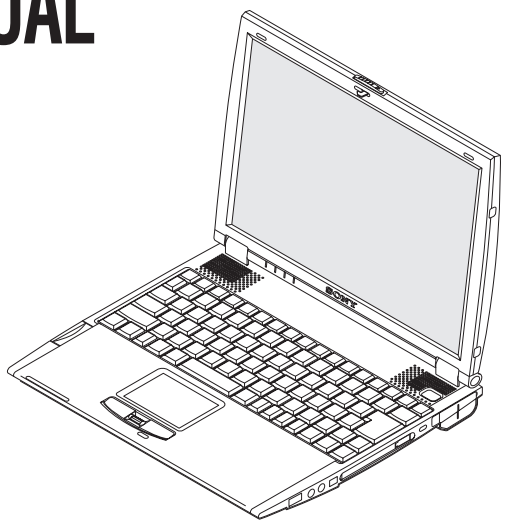
PCG-R505TE/R505TEK/R505TS/R505TSK

SERVICE MANUAL



US Model
Canadian Model

S400

VAIO

Includes PCG-R505TL/TLK Difference Manual

Notebook Computer

SONY

9-872-185-11

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Caution Markings for Lithium/Ion Battery - The following or similar texts shall be provided on battery pack of equipment or in both the operating and the service instructions.

CAUTION: Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Discard used batteries according to the manufacturer's instructions.

CAUTION: The battery pack used in this device may present a fire or chemical burn hazard if mistreated. Do not disassemble, heat above 100°C (212°F) or incinerate.
Dispose of used battery promptly.
Keep away from children.

CAUTION: Changing the back up battery.

- Overcharging, short circuiting, reverse charging, multilation or incineration of the cells must bi avoided to prevent one or more of the following occurrences; release of toxic materials, release of hydrogen and/or oxygen gas, rise in surface temperature.
- If a cell has leaked or vented, it should be replaced immediately while avoiding to touch it without any protection.

Service and Inspection Precautions

1. Obey precautionary markings and instructions

Labels and stamps on the cabinet, chassis, and components identify areas requiring special precautions. Be sure to observe these precautions, as well as all precautions listed in the operating manual and other associated documents.

2. Use designated parts only

The set's components possess important safety characteristics, such as noncombustibility and the ability to tolerate large voltages. Be sure that replacement parts possess the same safety characteristics as the originals. Also remember that the ⚠ mark, which appears in circuit diagrams and parts lists, denotes components that have particularly important safety functions; be extra sure to use only the designated components.

3. Always follow the original design when mounting parts and routing wires

The original layout includes various safety features, such as inclusion of insulating materials (tubes and tape) and the mounting of parts above the printer board. In addition, internal wiring has been routed and clamped so as to keep it away from hot or high-voltage parts. When mounting parts or routing wires, therefore, be sure to duplicate the original layout.

4. Inspect after completing service

After servicing, inspect to make sure that all screws, components, and wiring have been returned to their original condition. Also check the area around the repair location to ensure that repair work has caused no damage, and confirm safety.

5. When replacing chip components...

Never reuse components. Also remember that the negative side of tantalum capacitors is easily damaged by heat.

6. When handling flexible print boards...

- The temperature of the soldering-iron tip should be about 270C.
- Do not apply the tip more than three times to the same pattern.
- Handle patterns with care; never apply force.

Caution: Remember that hard disk drives are easily damaged by vibration. Always handle with care.

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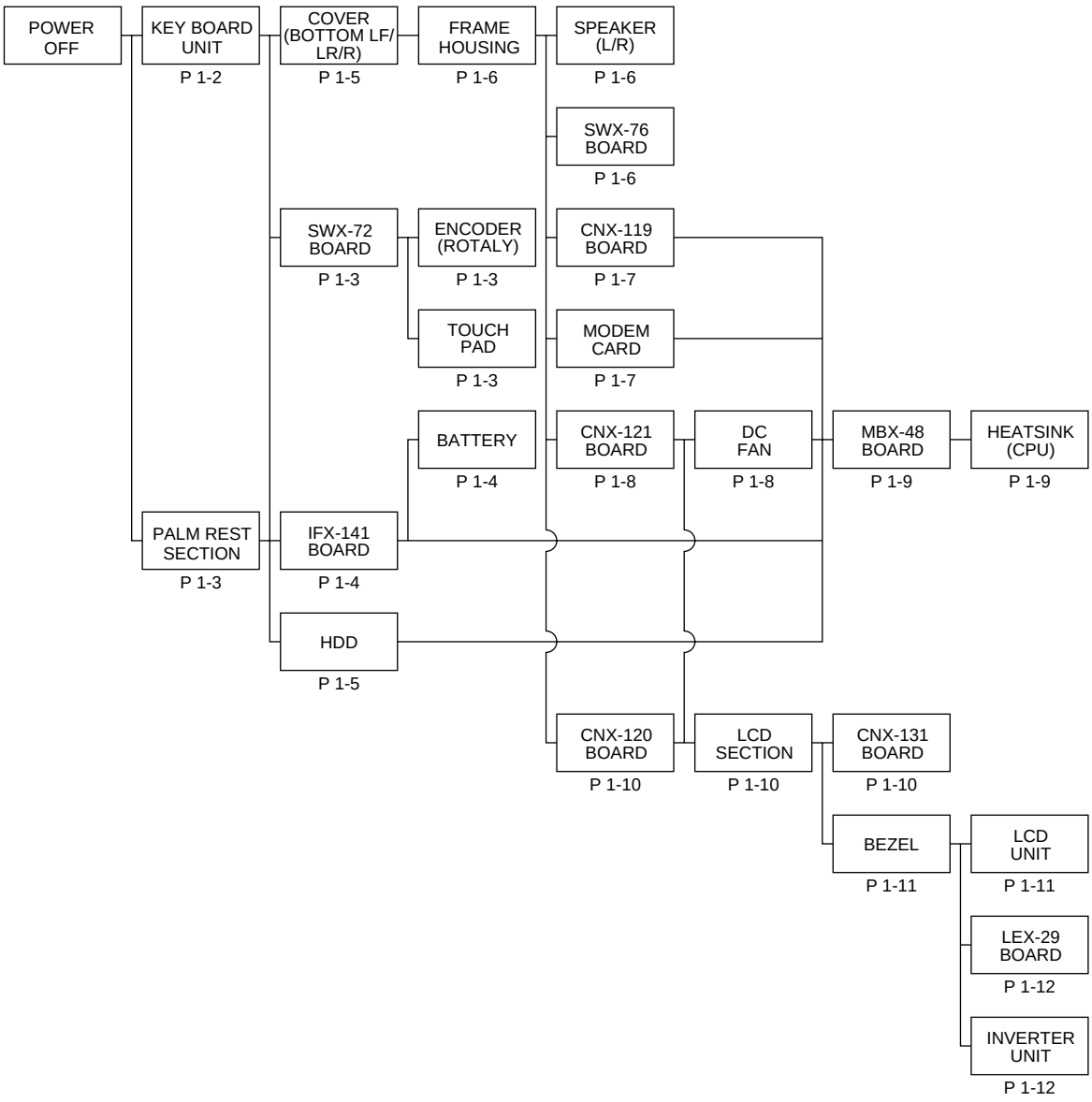
- Abbreviations
  UC : US model / Canadian model

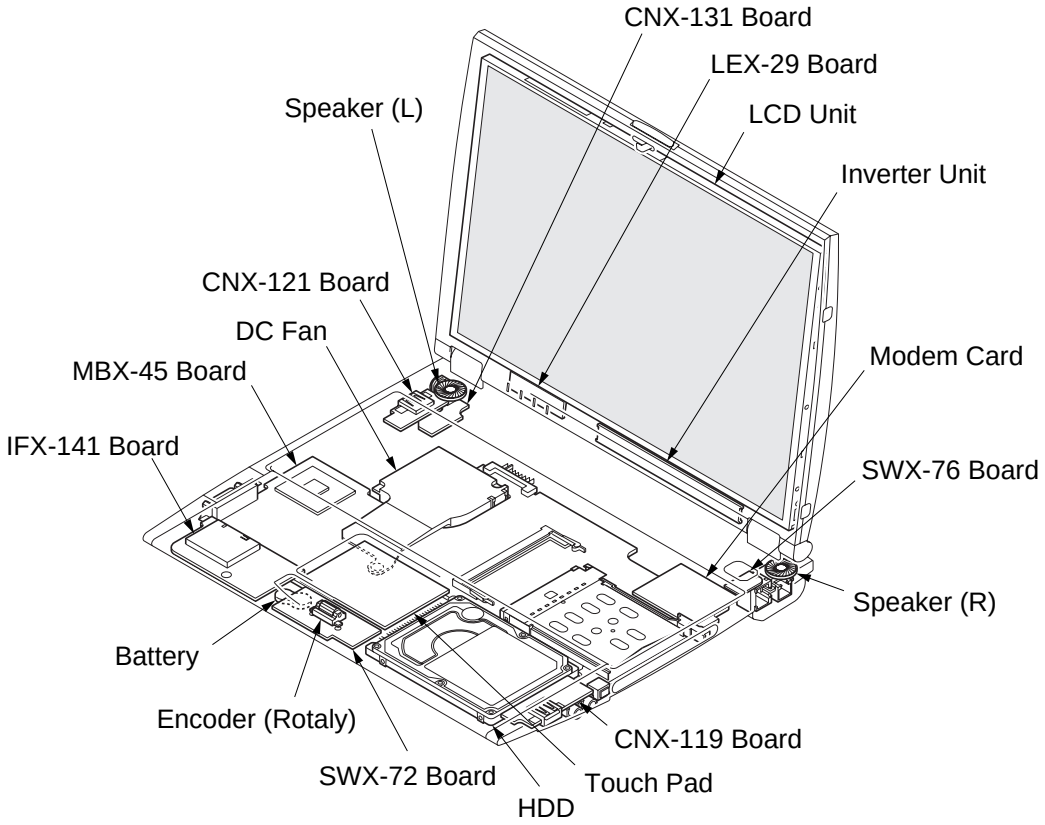
1-1. Flowchart



• P XX means pages that appears in this manual.

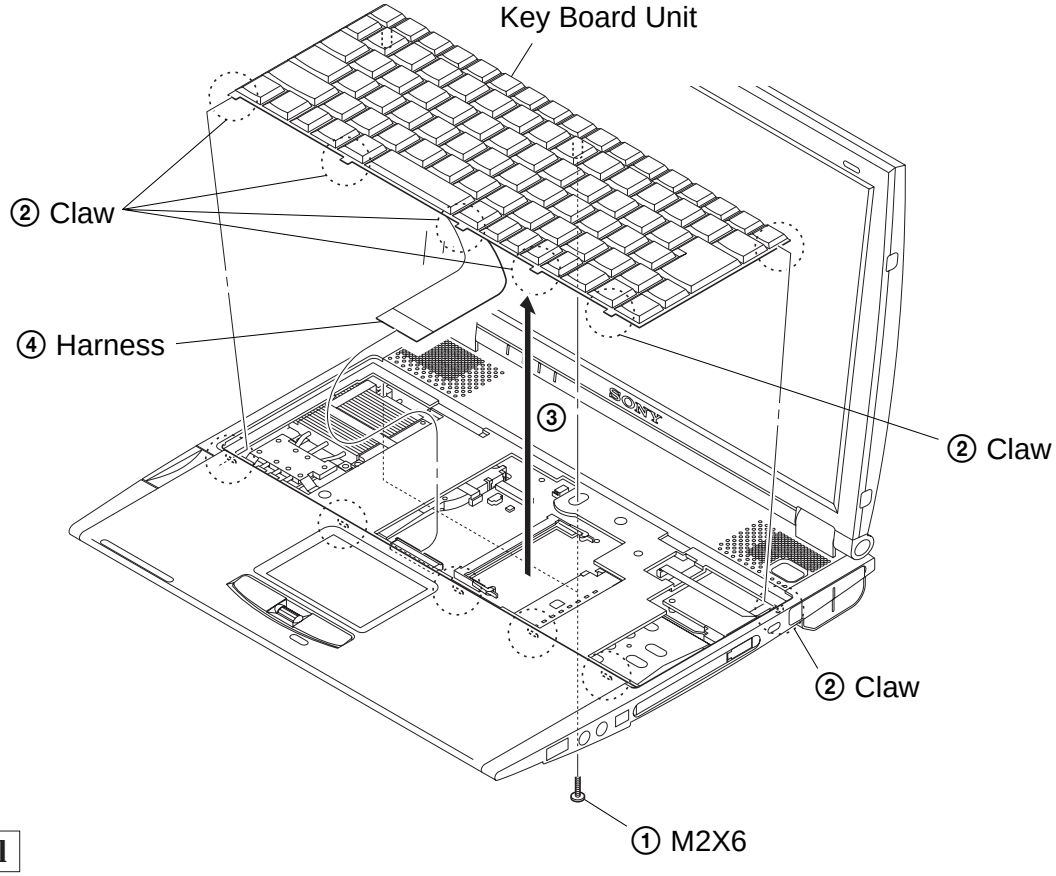
• Remember that hard disk drives are easily damaged by vibration. Always handle with care.

1-2. Main Electrical Parts Location Diagram

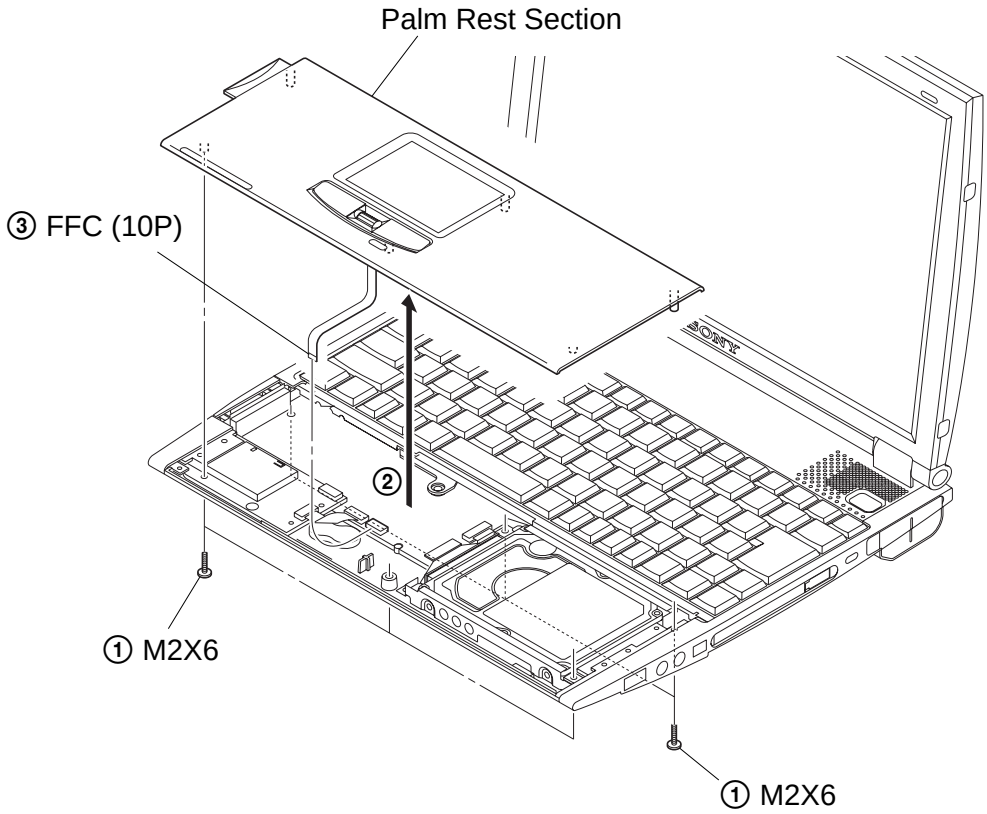


1-3. Removal

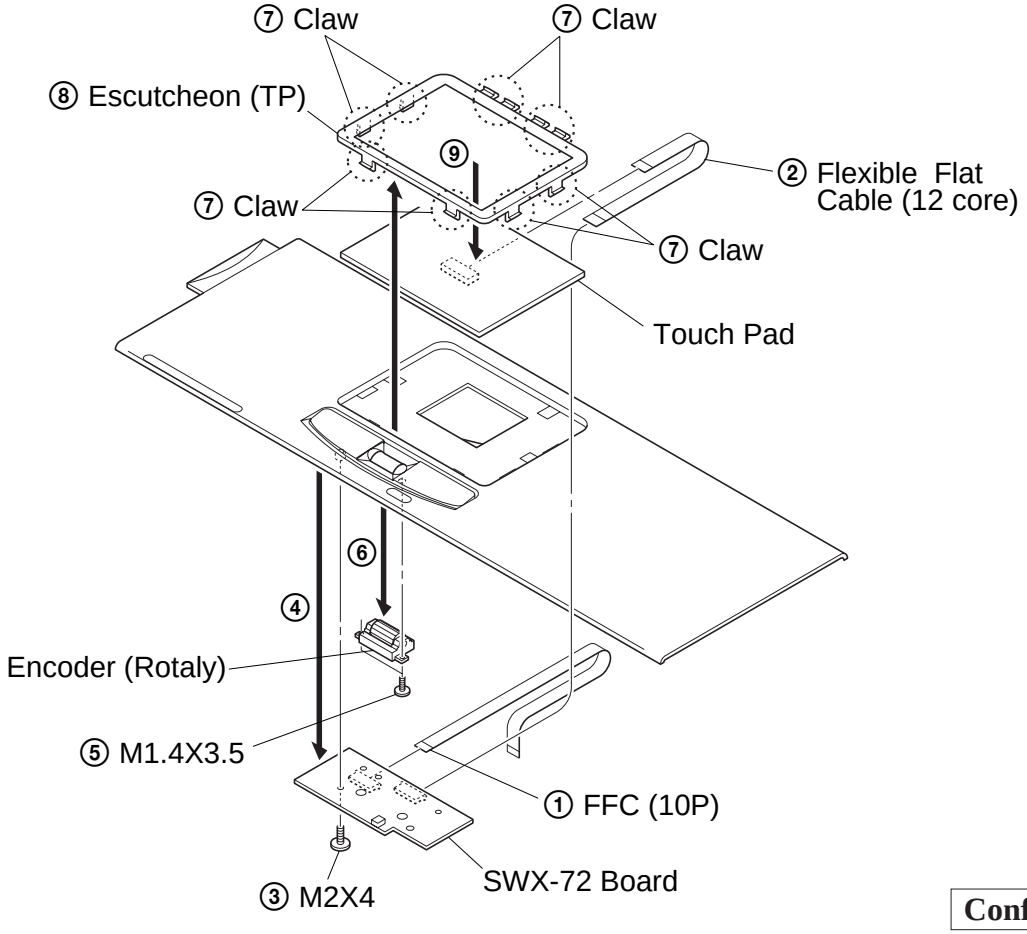
1. Key Board Unit



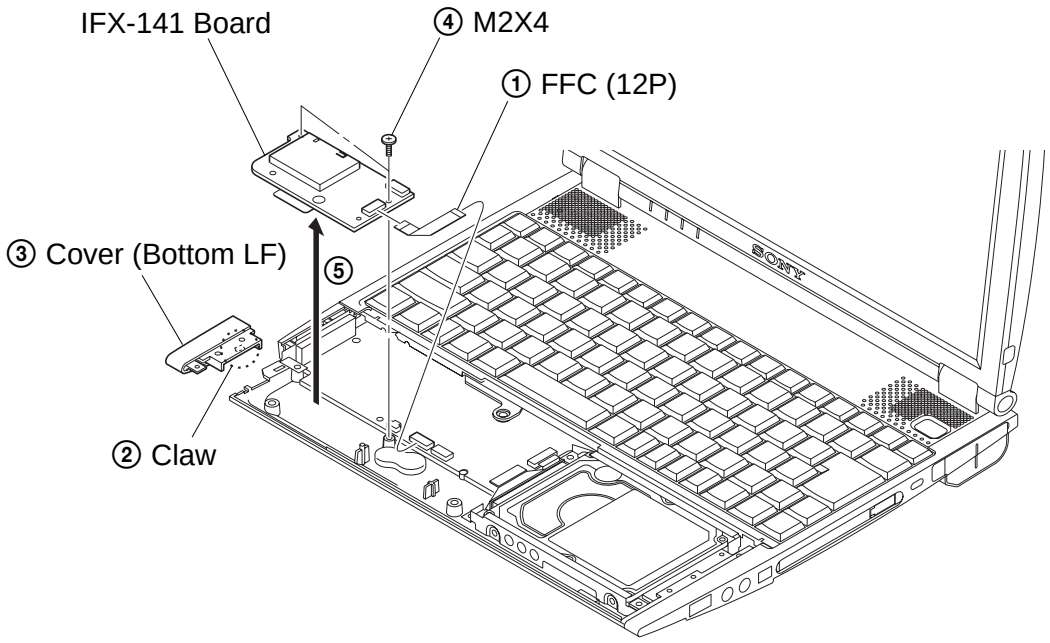
2. Palm Rest Section



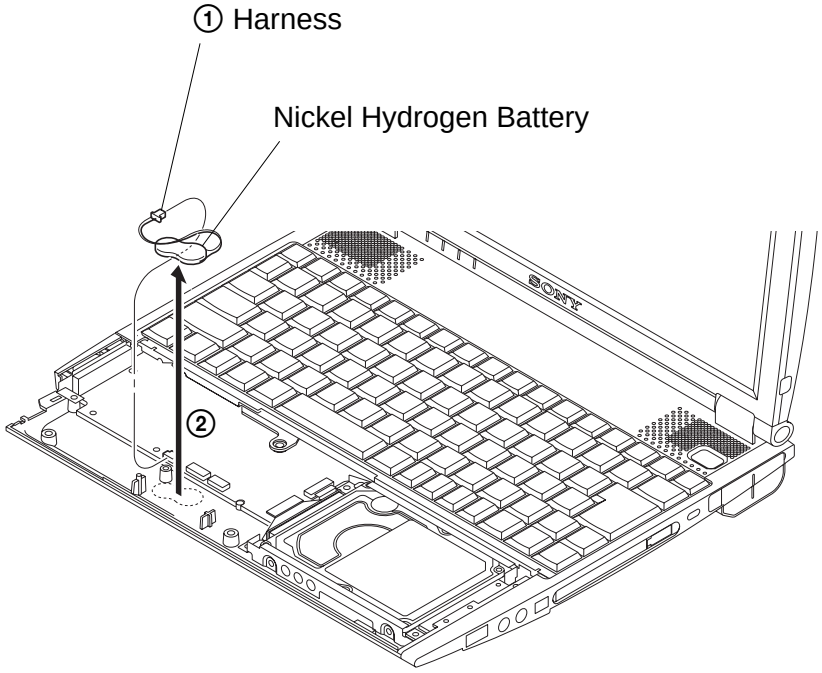
3. SWX-72 Board, Encoder (Rotaly), Touch Pad



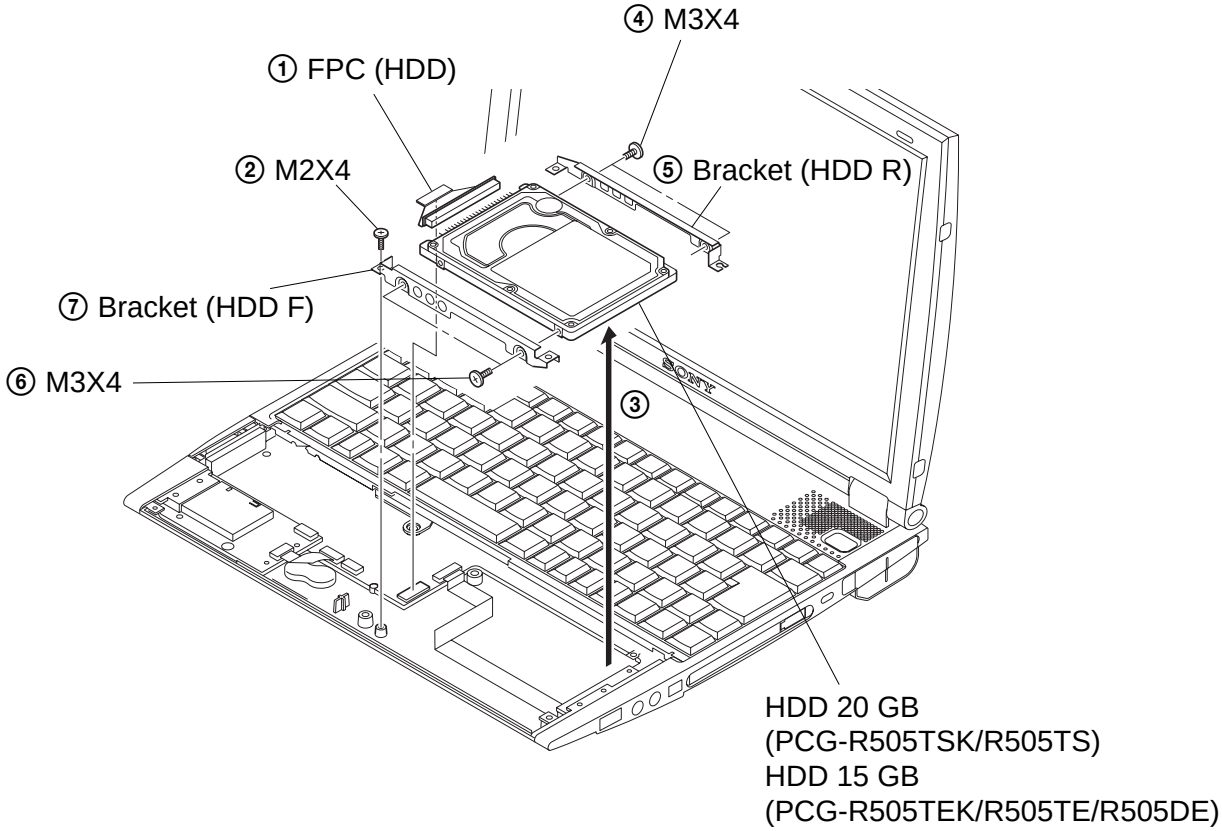
4. IFX-141 Board



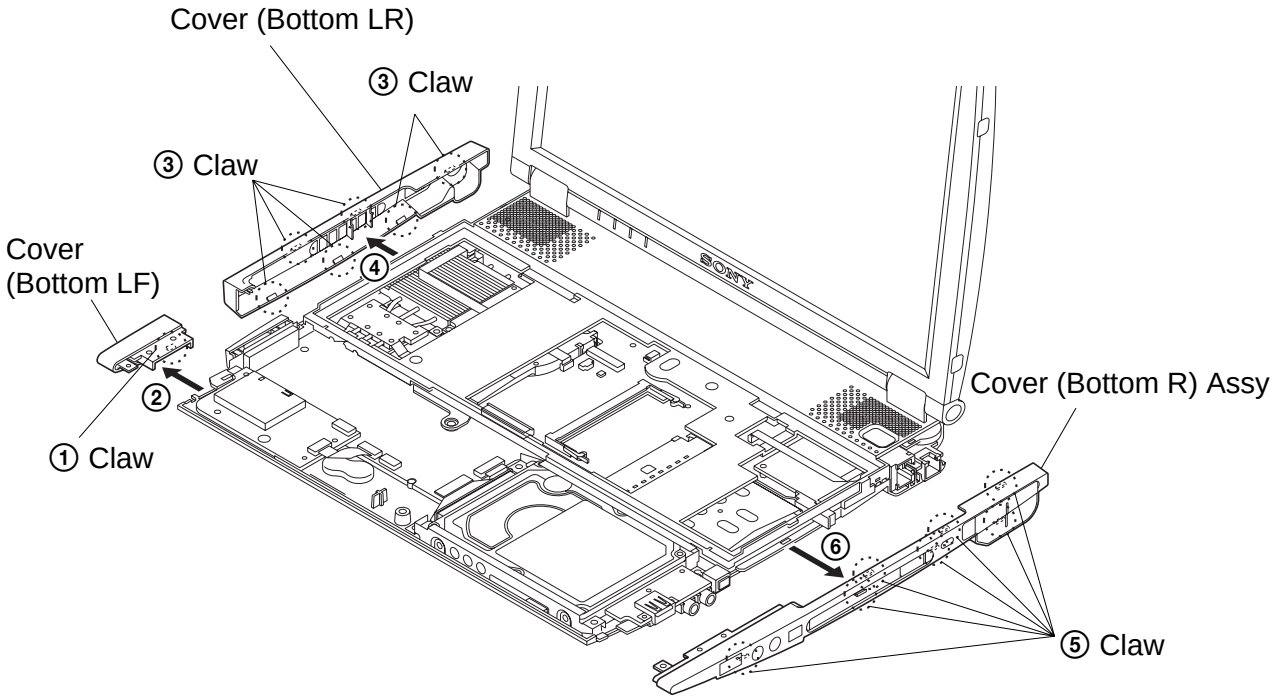
5. Battery



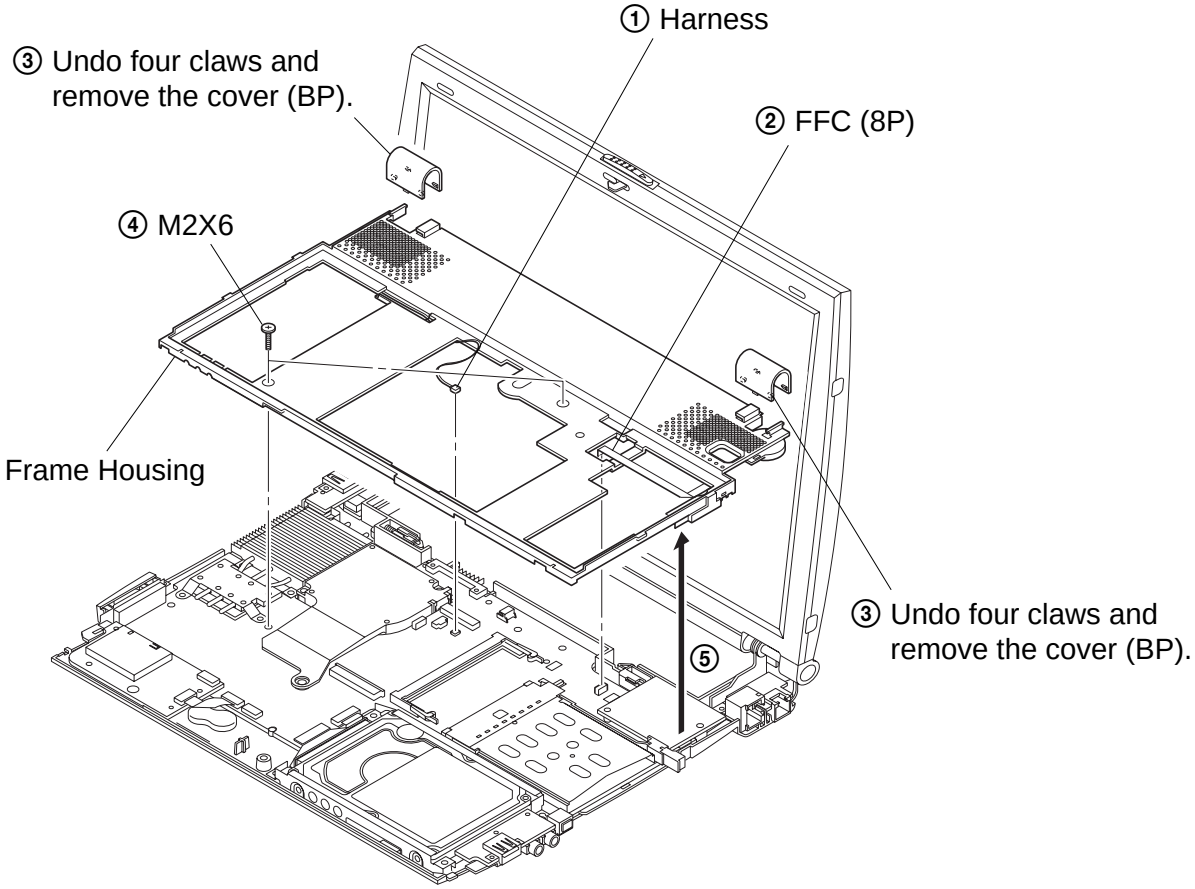
6. HDD



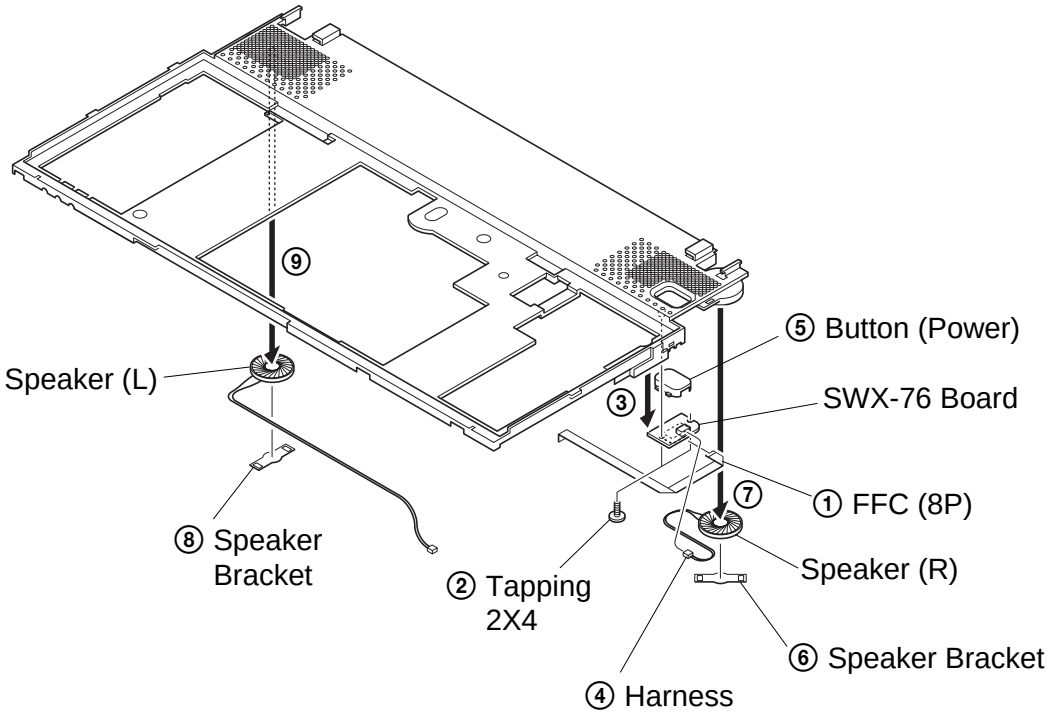
7. Cover (Bottom LF/LR/R)



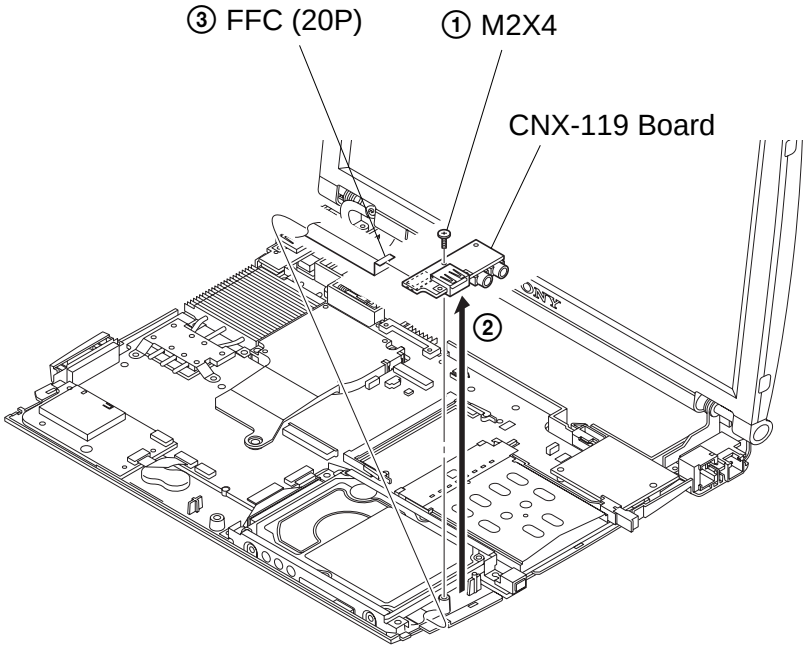
8. Frame Housing



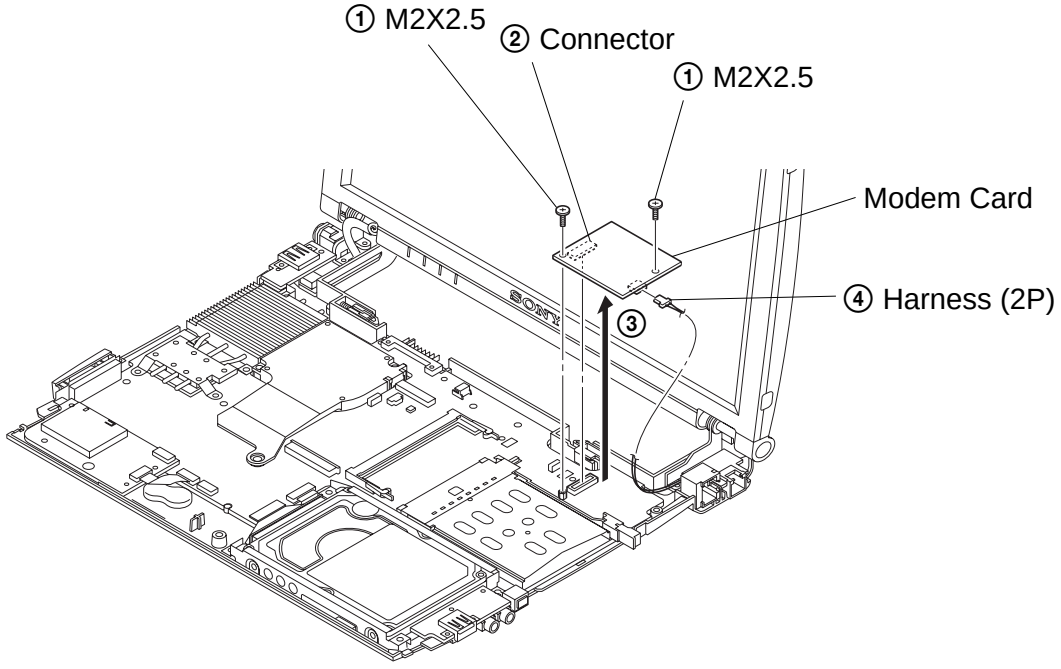
9. SWX-76 Board, Speaker (L/R)



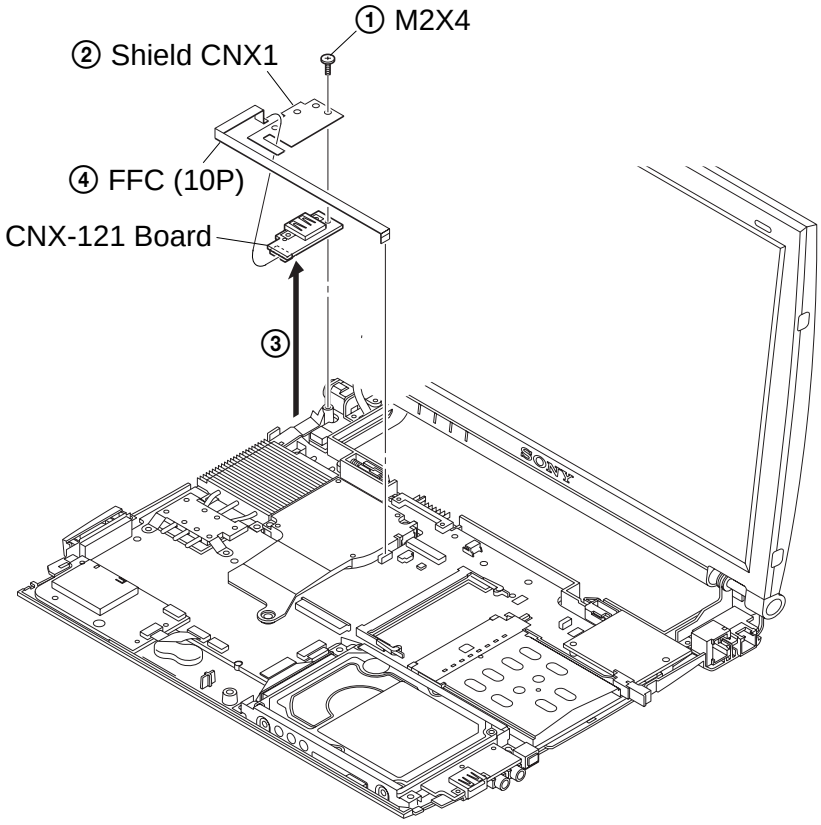
10. CNX-119 Board



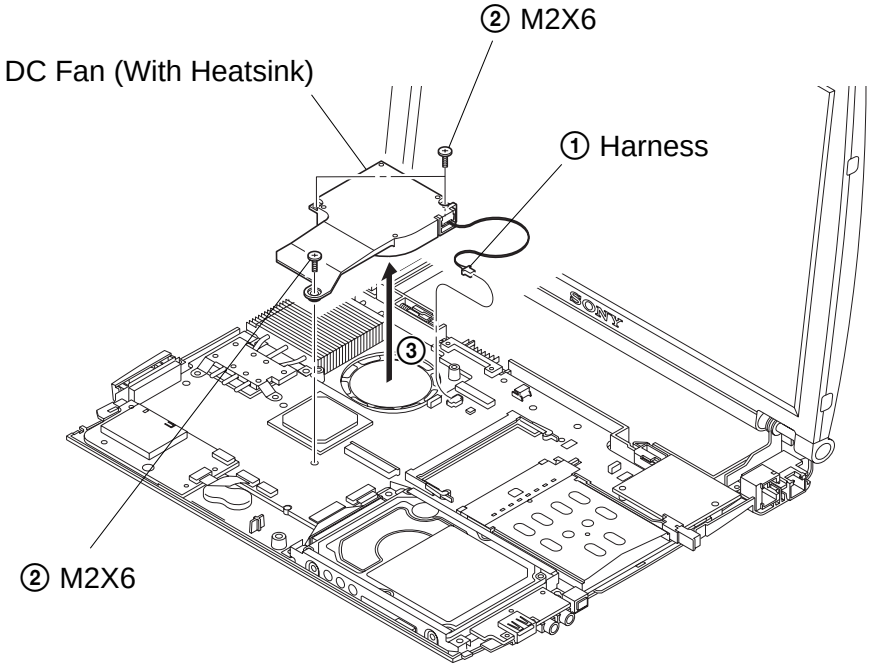
11. Modem Card



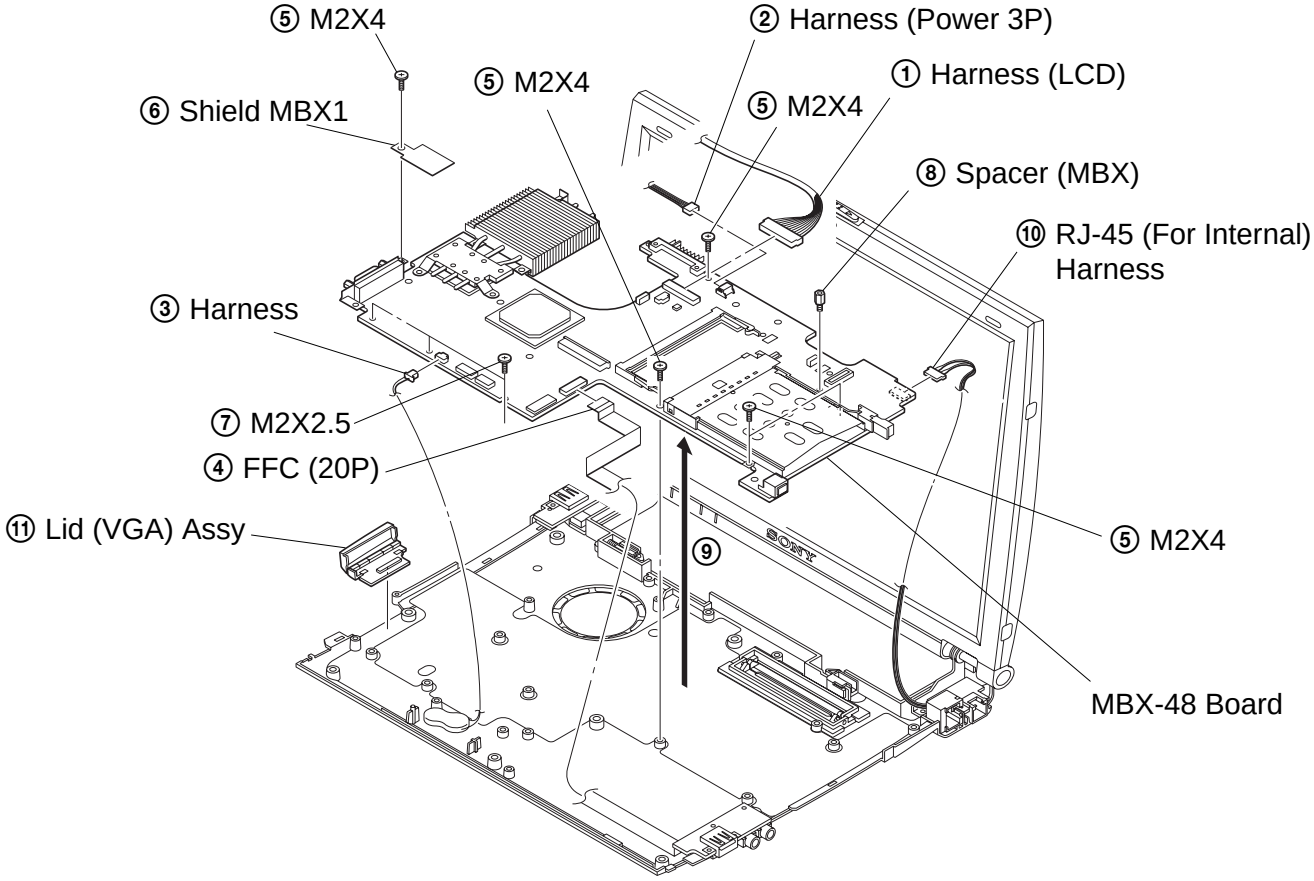
12. CNX-121 Board



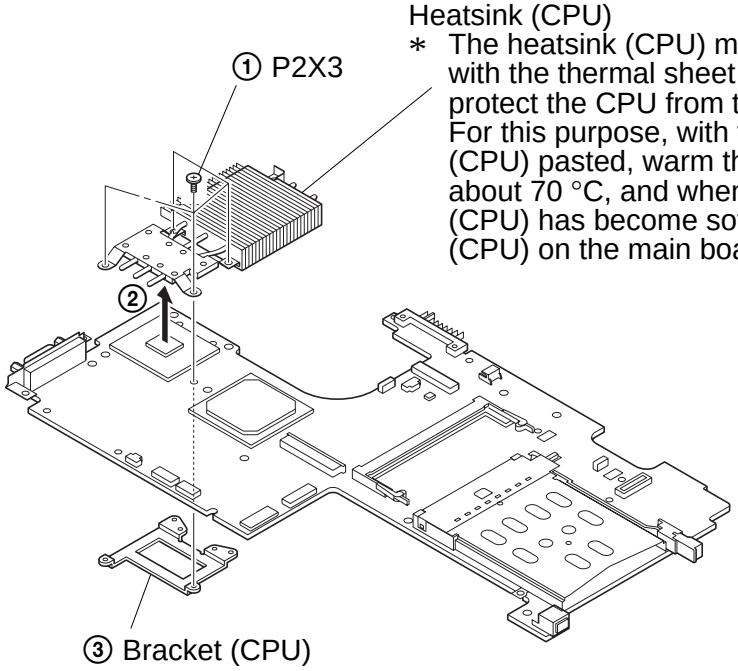
13. DC Fan



14. MBX-48 Board



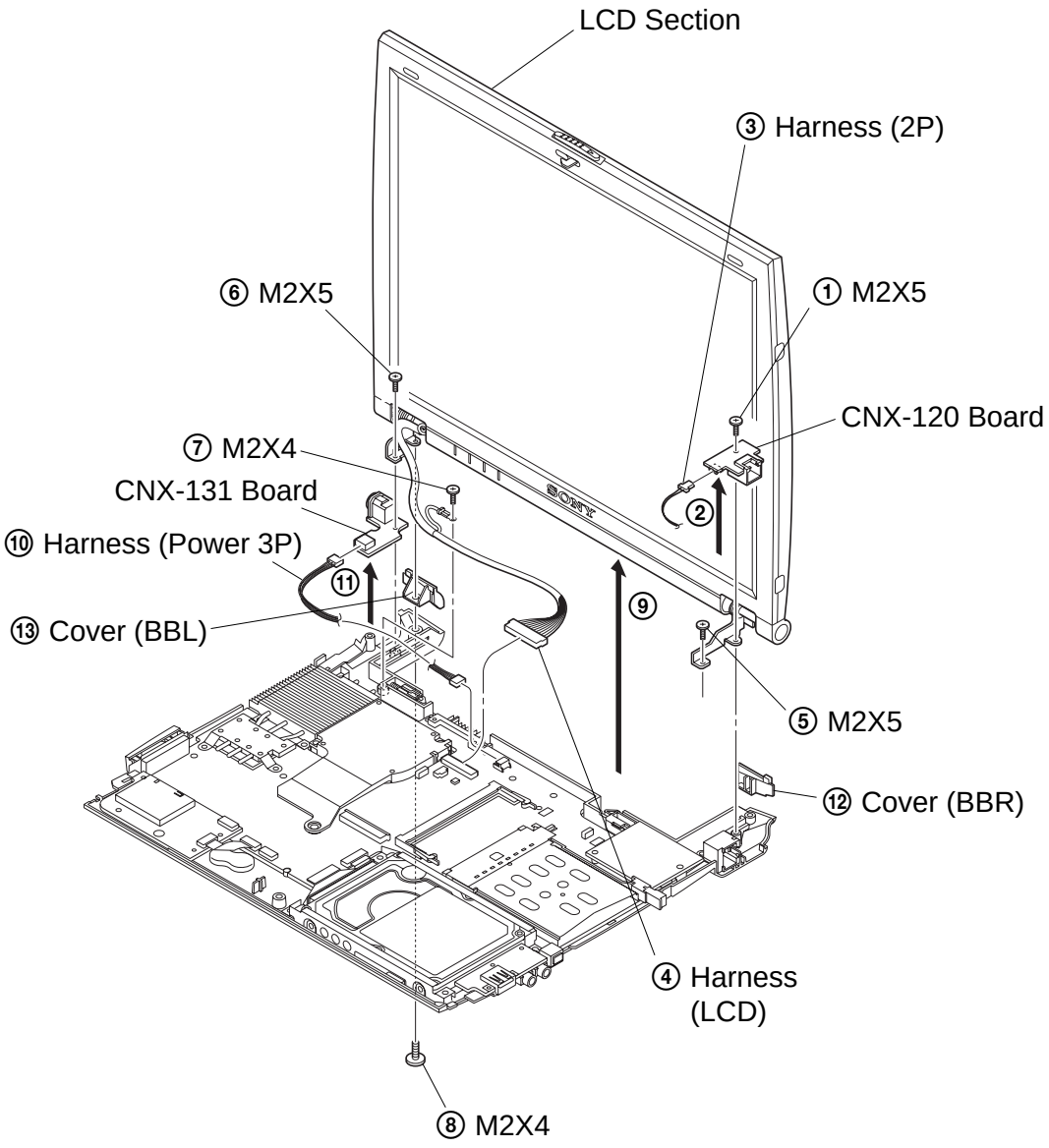
15. Heatsink (CPU)



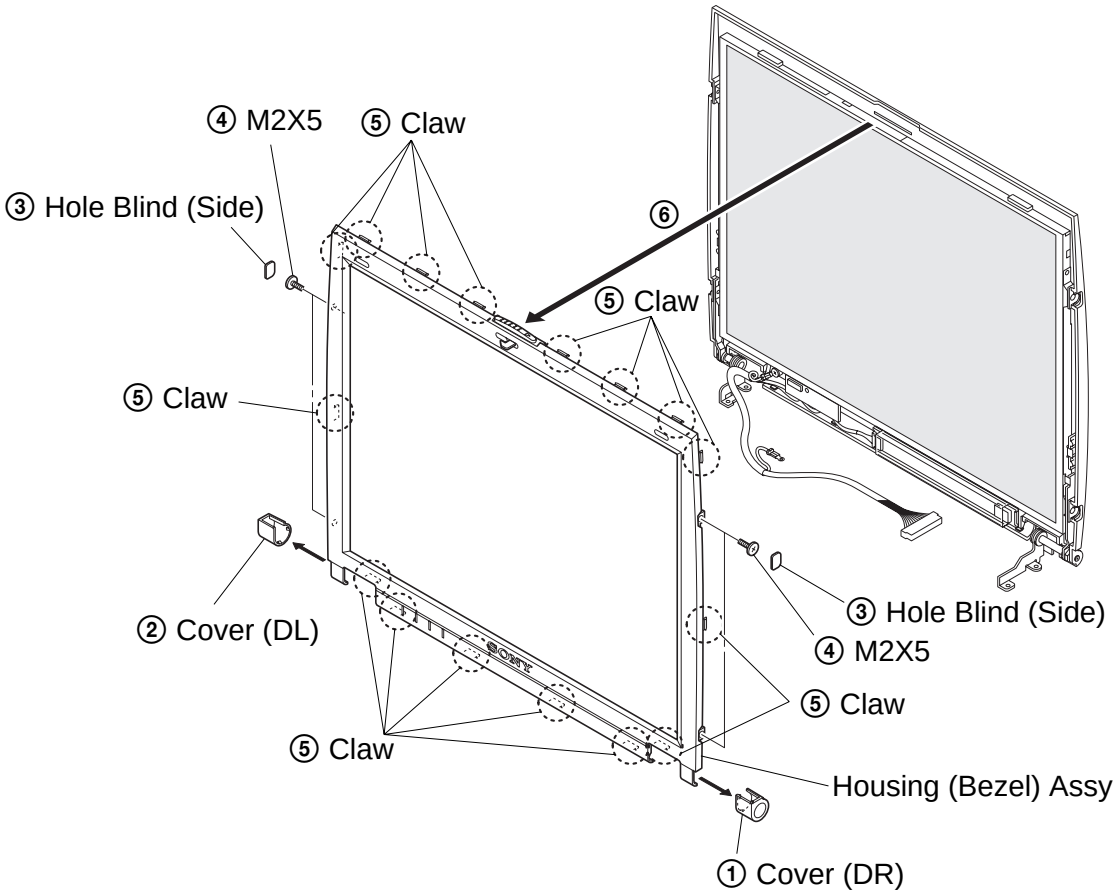
Heatsink (CPU)

* The heatsink (CPU) must be installed with the thermal sheet (CPU) in soft state to protect the CPU from the stress.
For this purpose, with the thermal sheet (CPU) pasted, warm the heatsink (CPU) to about 70 °C, and when the thermal sheet (CPU) has become soft, install the heatsink (CPU) on the main board.

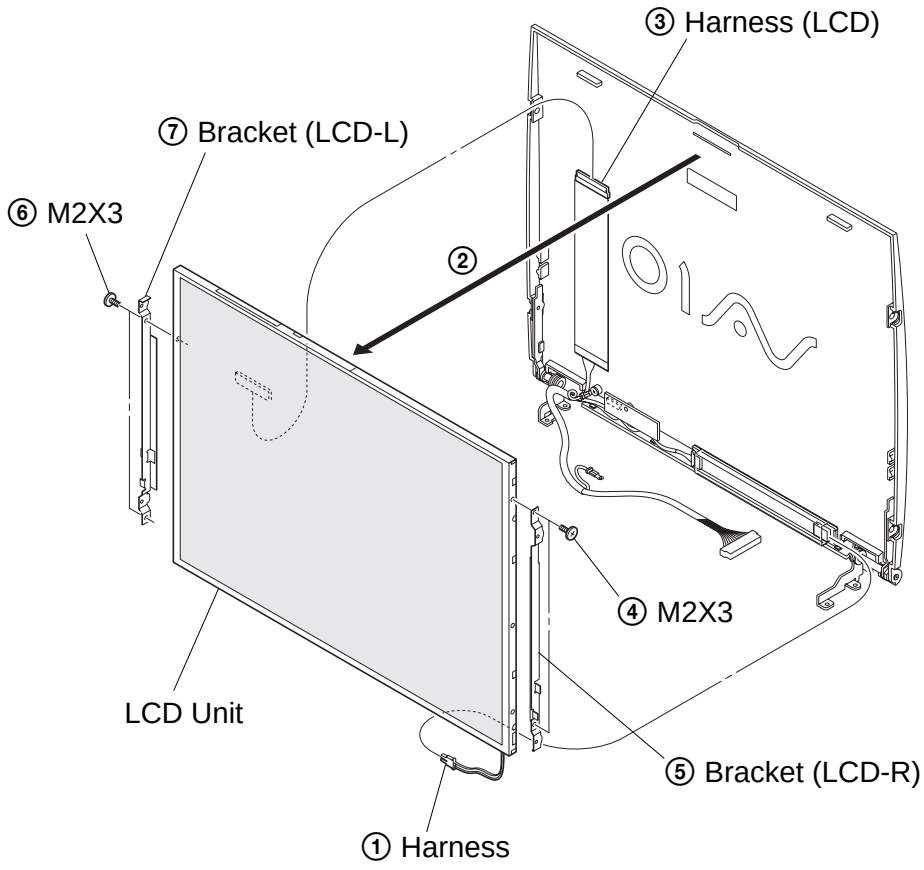
16. CNX-120 Board, LCD Section, CNX-131 Board



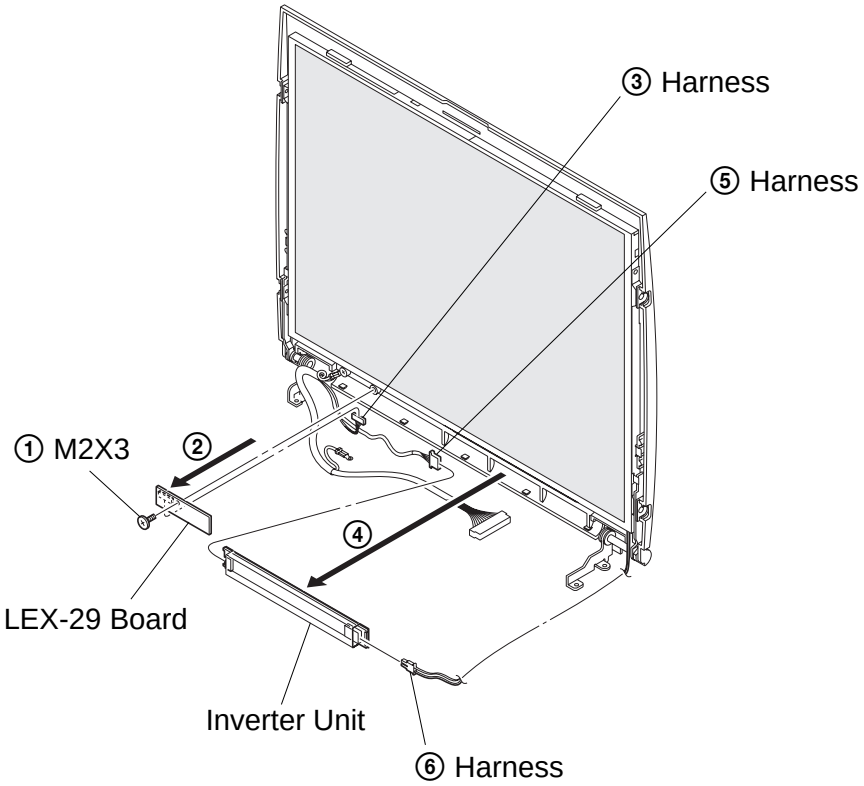
17. Bezel



18. LCD Unit



19. LEX-29 Board, Inverter Unit

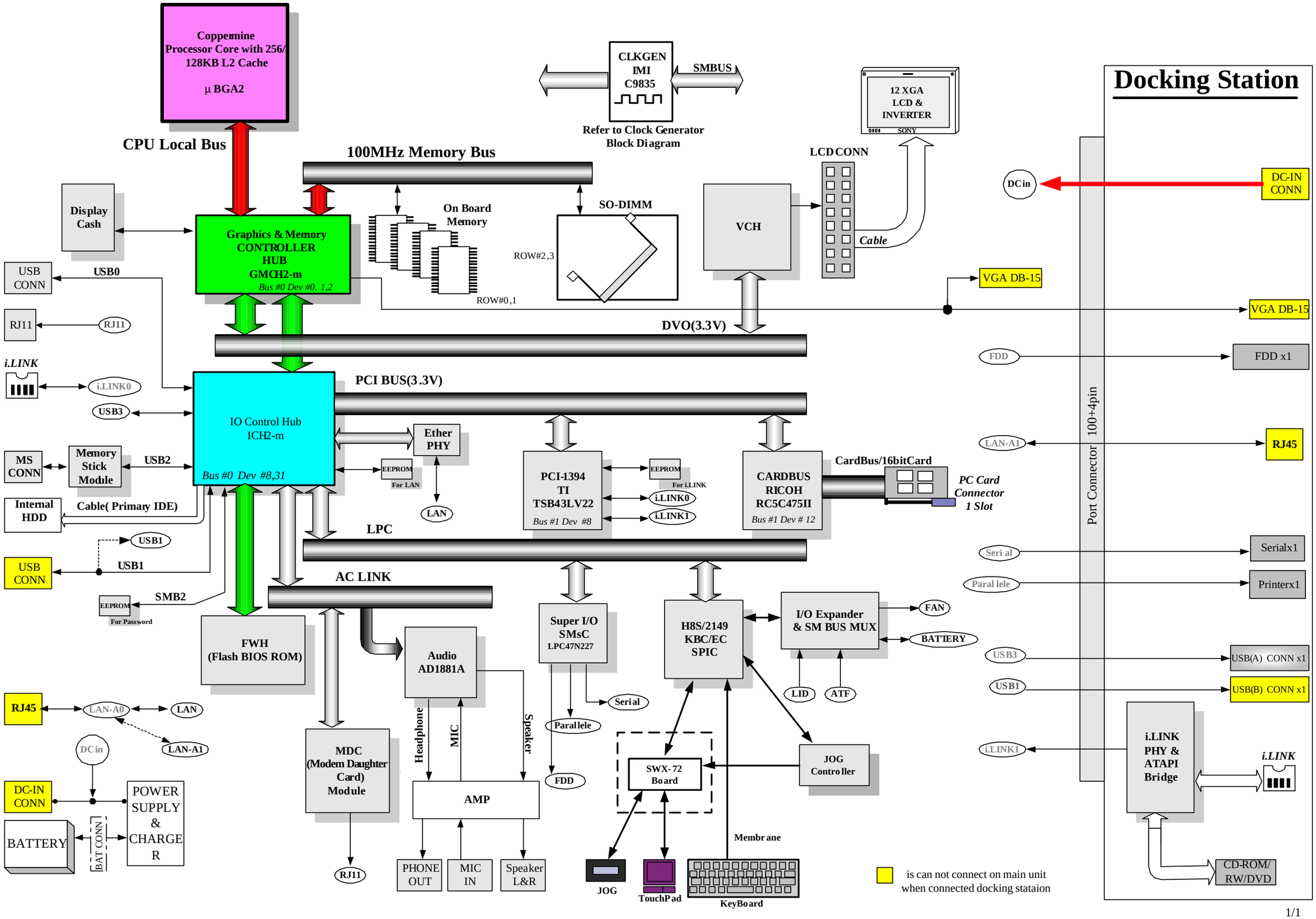


CHAPTER 2.
SELF DIAGNOSTICS

< ATTENTION >

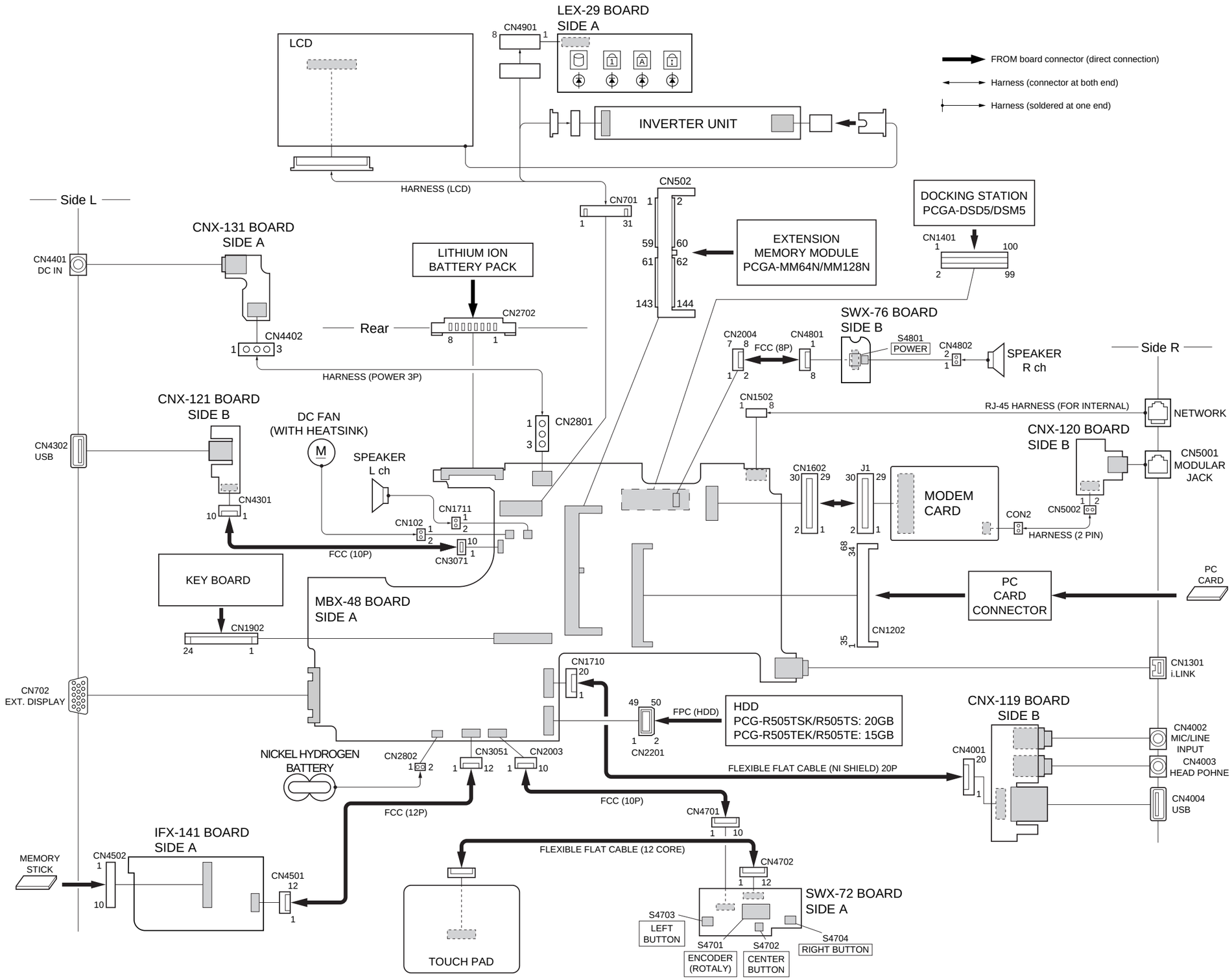
Please confirm “Self Diagnostics” method which will be informed you with distribution of “Self Diagnostics” software.

CHAPTER 3.
BLOCK DIAGRAM



1/1

CHAPTER 4.
FRAME HARNESS DIAGRAM



CHAPTER 5.

EXPLODED VIEWS AND PARTS LIST

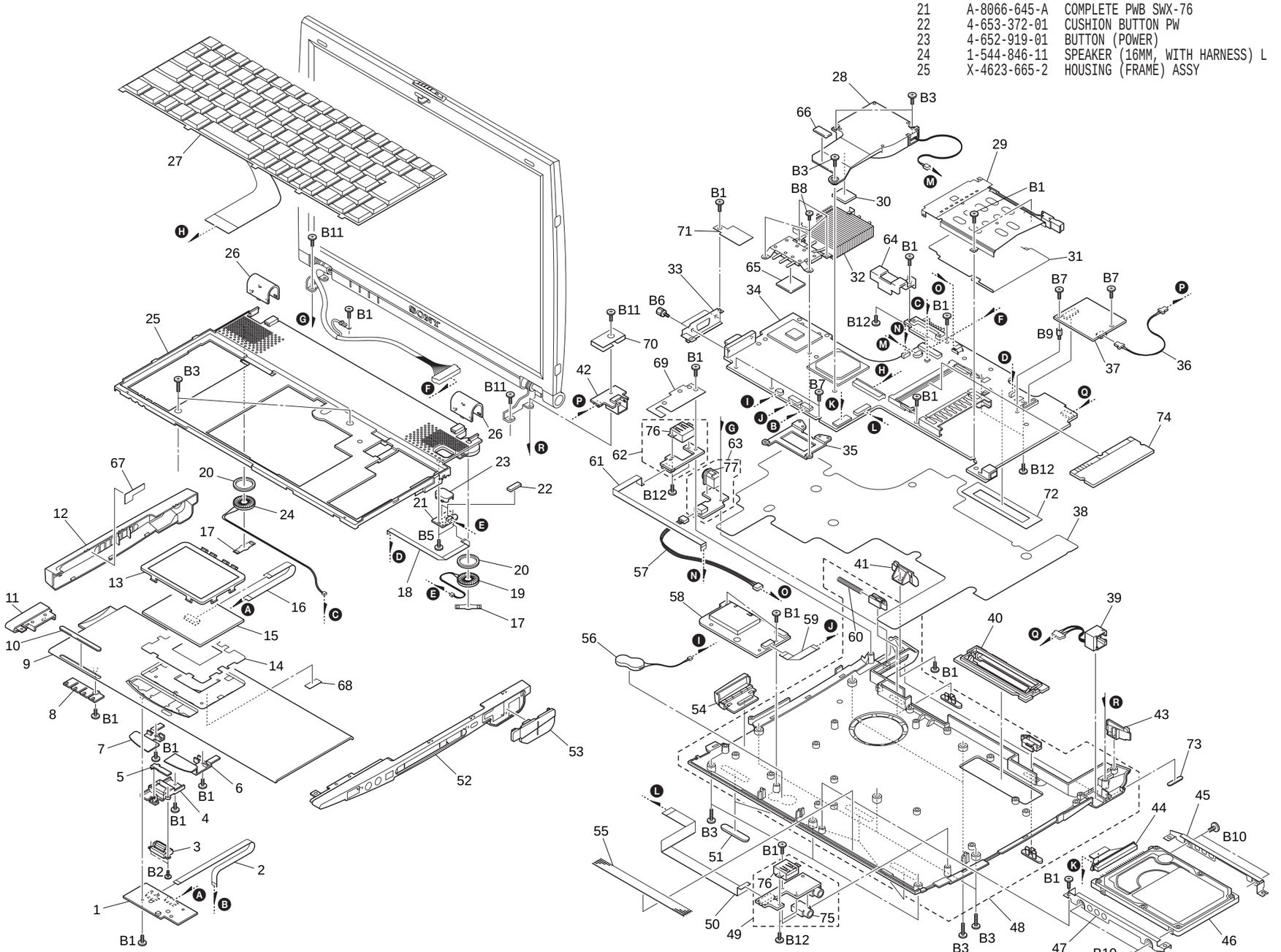
NOTE:

- The mechanical parts with no reference number in the exploded views are not supplied.
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- When the same reference numbers are written down in the list, please use the one listed in the first place as the main part.

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.
Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

* To paste the thermal sheet (CPU) (65) to the heatsink (CPU), warm the thermal sheet (CPU) adequately until it becomes soft.
  For further information, refer to the removal (page 1-9).

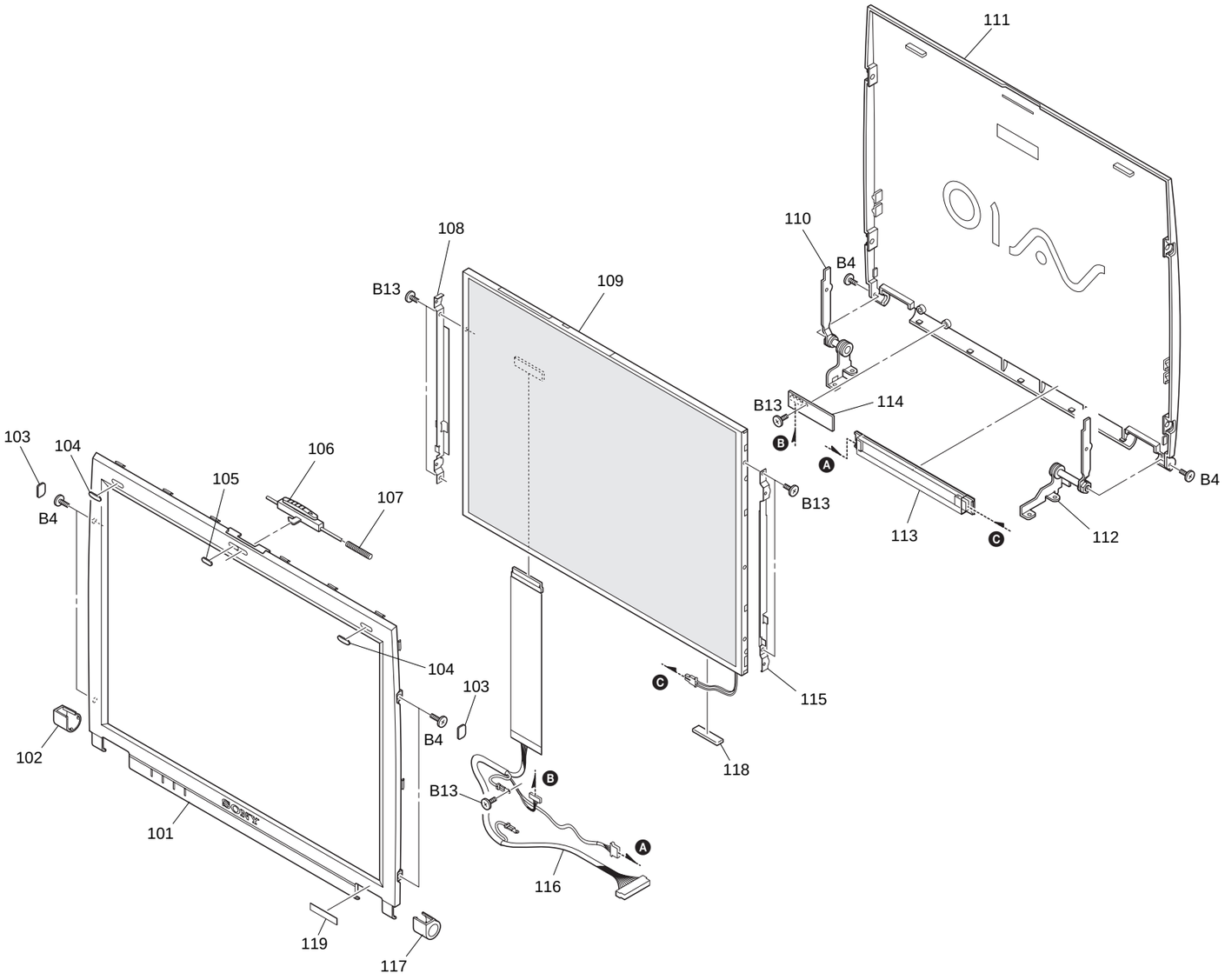
5-1. Main Section



Ref.No.	Part No.	Description
1	A-8066-644-A	COMPLETE PWB SWX-72
2	1-757-785-11	FFC (10P)
3	1-476-060-31	ENCODER (ROTALY)
4	4-652-922-02	BRACKET (JOG)
5	4-652-940-02	DETECTOR, LATCH
6	4-652-921-02	BUTTON (TP-R)
7	4-652-920-02	BUTTON (TP-L)
8	4-652-935-02	LENS (PALM REST)
9	4-652-907-01	HOUSING (PALM REST)
10	4-652-944-01	COVER, LENS
11	4-652-909-02	COVER (BOTTOM LF)
12	4-652-910-02	COVER (BOTTOM LR)
13	4-652-923-02	ESCUTCHEON (TP)
14	4-653-410-01	SHEET (TP), INSULATING
15	1-772-529-61	PAD, TOUCH
16	1-790-729-11	CABLE, FLEXIBLE FLAT (12 CORE)
17	4-653-370-01	BRACKET, SPEAKER
18	1-757-787-11	FFC (8P)
19	1-544-847-11	SPEAKER (16MM, WITH HARNESS) R
20	4-653-371-01	CUSHION, SPEAKER
21	A-8066-645-A	COMPLETE PWB SWX-76
22	4-653-372-01	CUSHION BUTTON PW
23	4-652-919-01	BUTTON (POWER)
24	1-544-846-11	SPEAKER (16MM, WITH HARNESS) L
25	X-4623-665-2	HOUSING (FRAME) ASSY
26	4-652-913-01	COVER (BP)
27	1-476-671-21	KEY BOARD UNIT (US)
28	1-763-688-11	FAN, DC (WITH HEATSINK)
29	1-815-304-11	CONNECTOR, PC CARD 1 SLOT
30	4-654-327-01	SHEET (GMCH), THERMAL
31	4-653-411-01	SHEET(PC CARD), INSULATING
* 32	4-652-932-01	HEATSINK (CPU)
* 33	4-652-924-01	BRACKET (VGA)
34	A-8049-520-A	(R505TSK/R505TS)... MBX-48 (850SS-H) (S)
34	A-8049-521-A	(R505TEK/R505TE)... MBX-48 (750SS-H) (S)
* 35	4-652-925-01	BRACKET (CPU)
36	1-960-827-31	HARNESS (2 PIN)
37	1-761-380-22	CARD, MODEM
38	4-653-412-01	SHEET (BOTTOM), INSULATING
39	1-961-140-11	HARNESS, RJ-45 (FOR INTERNAL)
40	X-4623-577-1	LID (DOC) ASSY
41	4-651-941-02	COVER (BBL)
42	A-8066-651-A	COMPLETE PWB CNX-120
43	4-652-942-02	COVER (BBR)
44	1-790-750-13	FPC (HDD)
* 45	4-652-927-01	BRACKET (HDD R)
46	1-772-996-11	(R505TSK/R505TS)... HDD (20.0GB-DK23BA-20)
46	1-796-070-11	(R505TEK/R505TE)... HDD (15.0GB)-DK23BA
* 47	4-652-926-01	BRACKET (HDD F)
48	X-4623-575-2	HOUSING (BOTTOM) ASSY
49	A-8066-648-A	COMPLETE PWB CNX-119
50	1-757-786-11	FLEXIBLE FLAT CABLE (NI SHIELD) 20P
51	4-641-449-01	FOOT (F)
52	X-4623-576-2	COVER (BOTTOM R) ASSY
53	4-652-918-01	LID (ETHER)
54	X-4623-578-1	LID (VGA) ASSY
55	4-654-610-02	COVER AIR DUCT
56	1-756-038-11	BATTERY, NICKEL HYDROGEN
57	1-961-147-11	HARNESS (POWER 3P)
58	A-8066-647-A	COMPLETE PWB IFX-141
59	1-757-784-11	FFC (12P)
60	4-641-779-01	SPRING (BT), COMPRESSION COIL
61	1-757-792-11	FFC (10P)
62	A-8066-649-A	COMPLETE PWB CNX-121
63	A-8066-650-A	COMPLETE PWB CNX-131
64	4-653-432-01	CLAMP
65	4-654-326-01	SHEET (CPU), THERMAL
66	4-654-384-01	GND GASKET 5X15X1
67	4-654-450-02	SHEET (COVER LR)
68	4-654-382-01	CUSHION HDD CONNECTOR
69	4-654-518-01	SHIELD CNX 1
70	4-653-506-02	SHEET (MODEM)
71	4-654-517-01	SHIELD MBX 1
72	4-654-239-01	INSULATING SHEET
73	4-652-943-01	FOOT (R)
74	8-759-695-59	(R505TEK/R505TE)... IC MT4LSDT864HG-10EB1
75	1-695-514-21	JACK (SMALL TYPE) 1P (HEAD PHONE)
76	1-793-100-11	CONNECTOR, USB
77	1-779-745-31	JACK, DC
B1	4-644-492-31	ACE (M2), LOCK (2X4)
B2	3-930-461-01	SCREW (DIA. 1.4X3.5), PRECISION
B3	4-644-492-01	ACE (M2), LOCK (2X6)
B5	4-648-320-01	TAPPING (M2) (2X4)
* B6	4-635-966-01	SCREW (HEX)
B7	4-645-016-31	ACE (M2) (DIA. 4.6), LOCK (2X2.5)
B8	7-621-255-15	SCREW +P 2X3
B9	4-651-989-11	SPACER (MBX)
B10	4-635-301-01	SCREW M3X4
B11	4-654-273-01	ACE (M2), LOCK (2X5)
B12	4-644-492-51	ACE (M2), LOCK

Confidential

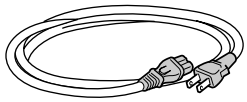
5-2. LCD Section



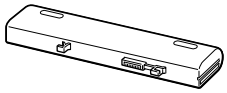
Ref.No.	Part No.	Description
101	X-4623-574-2	HOUSING (BEZEL) ASSY
102	4-652-902-01	COVER (DL)
103	4-652-933-01	BLIND (SIDE), HOLE
104	4-652-934-01	BLIND (LCD), HOLE
105	4-652-938-01	CUSHION (LATCH)
106	4-652-904-02	LATCH
107	4-639-623-11	SPRING (LATCH), COIL
* 108	4-652-898-01	BRACKET (LCD-L)
109	A-8048-165-A	LCD UNIT (12.1 TFTXGA) (S)
110	4-652-900-01	TILT UNIT (L)
111	X-4623-573-1	HOUSING (DISPLAY) ASSY
112	4-652-901-01	TILT UNIT (R)
113	1-476-317-12	INVERTER UNIT
114	A-8066-646-A	COMPLETE PWB LEX-29
* 115	4-652-899-01	BRACKET (LCD-R)
116	1-961-063-11	HARNESS (LCD)
117	4-652-903-01	COVER (DR)
118	4-654-412-01	SPACER (LCD)
119	4-654-007-01	(R505TSK)...LABEL (ID (U))
119	4-654-007-11	(R505TS)...LABEL (ID (U))
119	4-654-007-21	(R505TEK)...LABEL (ID (U))
119	4-654-007-31	(R505TE)...LABEL (ID (U))
B4	4-643-356-01	SCREW (M2X5)
B13	4-644-492-21	ACE (M2), LOOCK (2X3)

5-3. Accessories

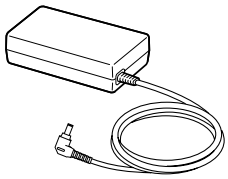
201
Power Cord (1)



203
Battery Pack (1)



204
AC Adaptor (1)



Ref.No.	Part No.	Description
		ACCESSORIES
		**********
⚠201	1-757-562-21	CORD, POWER
203	1-756-152-21	BATTERY PACK, LITHIUM ION (L)
⚠204	1-476-342-12	ADAPTOR, AC
	4-653-824-11	QUICK (START)

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

SONY

VAIO® R505 SuperSlim Pro™ Notebook Quick Start

PCG-R505TSK, PCG-R505TS
PCG-R505TEK, PCG-R505TE

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Notice to Users

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i.LINK is a trademark of Sony used only to designate that a product contains an IEEE 1394 connection. The i.LINK connection may vary, depending on the software applications, operating system, and i.LINK-compatible devices. All products with an i.LINK connection may not communicate with each other. Please refer to the documentation that came with your i.LINK-compatible device for information on operating conditions and proper connection. Before connecting i.LINK-compatible PC peripherals to your system, such as a CD-RW or hard disk drive, confirm their operating system compatibility and required operating conditions.

All other trademarks are trademarks of their respective owners.

Owner's Record

The model number and serial number are located on the bottom of your Sony VAIO® R505 SuperSlim Pro™ Notebook. Record the serial number in the space provided here. Refer to the model and serial number when you call your Sony Service Center.

Model Number: PCG-6112, PCG-6122, PCG-611A, PCG-612A

Serial Number:_____

Safety Information

WARNING

- **To prevent fire or shock hazard, do not expose your notebook to rain or moisture.**
- **To avoid electrical shock, do not open the cabinet. Refer servicing to qualified personnel only.**
- **Never install modem or telephone wiring during a lightning storm.**
- **Never install telephone jacks in wet locations unless the jack is specifically designed for wet locations.**
- **Never touch uninsulated telephone wire or terminals unless the telephone line has been disconnected at the network interface.**
- **Use caution when installing or modifying telephone lines.**
- **Avoid using the modem during an electrical storm.**
- **Do not use the modem or a telephone to report a gas leak in the vicinity of the leak.**
- **A socket outlet should be as close as possible to the unit and easily accessible.**

⚠ **Caution: To reduce the risk of fire, use only No. 26 AWG or larger telecommunication line cord.**

Caution : The use of optical instruments with this product will increase eye hazard. As the laser beam used in this product is harmful to the eyes, do not attempt to disassemble the cabinet. Refer servicing to qualified personnel only.

For CD-RW/DVD-ROM drive or DVD-ROM drive: Danger - Visible and invisible laser radiation when open. Avoid direct exposure to beam.

AVERTISSEMENT

- **Pour prévenir tout risque d'incendie ou d'électrocution, garder cet appareil à l'abri de la pluie et de l'humidité.**
- **Pour prévenir tout risque d'électrocution, ne pas ouvrir le châssis de cet appareil et ne confier son entretien qu'à une personne qualifiée.**
- **Ne jamais effectuer l'installation de fil modem ou téléphone durant un orage électrique.**
- **Ne jamais effectuer l'installation d'une prise téléphonique dans un endroit mouillé à moins que la prise soit conçue à cet effet.**
- **Ne jamais toucher un fil téléphonique à découvert ou un terminal à moins que la ligne téléphonique n'ait été débranché de l'interface réseau.**
- **Soyez très prudent lorsque vous installez ou modifiez les lignes téléphoniques.**
- **Évitez d'utiliser le modem durant un orage électrique.**
- **N'utilisez pas le modem ni le téléphone pour prévenir d'une fuite de gas si vous êtes près de la fuite.**
- **L'appareil doit être le plus près possible d'une prise murale pour en faciliter l'accès.**

Attention : Afin de réduire les risques d'incendie, n'utilisez qu'un cordon de communication N0. 26 AWG ou plus gros.

Avertissement - L'utilisation d'instruments optiques avec ce produit augmente les risques pour les yeux. Puisque le faisceau laser utilisé dans ce produit est dommageable pour les yeux, ne tentez pas de désassembler le boîtier. Adressez-vous à un agent de service qualifié.

Pour les lecteur CD-RW/DVD-ROM ou lecteur DVD-ROM: Danger : Radiation laser visible et invisible si ouvert. Évitez l'exposition directe au faisceau.

If you have any questions about this product, you can reach the Sony Customer Information Service Center by phone at 1-888-4SONYPC or on the web at http://www.sony.com/pcsupport. If you prefer to write the Sony Customer Information Service Center, our mailing address is 12451 Gateway Blvd., Ft. Myers, FL 33913 and our email address is SOS@mail.sel.sony.com.

Regulatory Information

Declaration of Conformity

Trade Name:	SONY
Model No.:	PCG-6112 PCG-6122 PCG-611A PCG-612A
Responsible Party:	Sony Electronics Inc.
Address:	680 Kinderkamack Rd. Oradell, NJ 07649
Telephone:	201-930-6972

This phone number is for FCC-related matters only.

This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and

(2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

You are cautioned that any changes or modifications not expressly approved in this manual could void your authority to operate this equipment.

Only peripherals (computer input/output devices, terminals, printers, etc.) that comply with FCC Class B limits may be attached to this computer product. Operation with noncompliant peripherals is likely to result in interference to radio and television reception.

All cables used to connect peripherals must be shielded and grounded. Operation with cables, connected to peripherals, that are not shielded and grounded, may result in interference to radio and television reception.

FCC Part 68

This equipment complies with Part 68 of the FCC rules. On the bottom of this equipment is a label that contains, among other information, the FCC Ringer Equivalence Number (REN) for this equipment. If requested, this information must be provided to the telephone company.

This modem uses the USOC RJ-11 telephone jack.

The REN is used to determine the quantity of devices which may be connected to the telephone line. Excessive RENs on the telephone line may result in the devices not

ringing in response to an incoming call. In most, but not all areas, the sum of the RENs should not exceed five (5.0). To be certain of the number of devices that may be connected to the line, as determined by the total RENs, contact the telephone company to determine the maximum REN for the calling area.

If the terminal equipment causes harm to the telephone network, the telephone company will notify you in advance that temporary discontinuance of service may be required. But if advance notice is not practical, the telephone company will notify the customer as soon as possible. Also, you will be advised of your right to file a complaint with the FCC if you believe it is necessary.

The telephone company may make changes in its facilities, equipment, operations or procedures that could affect the operations of the equipment. If this happens, the telephone company will provide advance notice in order for you to make the necessary modifications in order to maintain uninterrupted service.

If trouble is experienced with this equipment, you can reach the Sony Customer Information Service Center by phone at 1-888-4SONYPC or on the web at http://www.sony.com/pcsupport. If you prefer to write the Sony Customer Information Service Center, our mailing address is 12451 Gateway Blvd., Ft. Myers, FL 33913 and our email address is SOS@mail.sel.sony.com.

Repair of this equipment should be made only by a Sony Service Center or Sony authorized agent. For the Sony Service Center nearest you, call 1-888-4SONYPC (1-888-476-6972).

This equipment cannot be used on public coin service provided by the telephone company. Connection to Party Line Service is subject to state and possible provincial tariffs. (Contact the state or provincial utility service commission, public service commission, or corporation commission for information.)

Telephone Consumer Protection Act of 1991 (United States)

The Telephone Consumer Protection Act of 1991 makes it unlawful for any person to use a computer or other electronic device to send any message via a telephone facsimile machine unless such message clearly contains, in a margin at the top or bottom of each transmitted page or on the first page of the transmission, the date and time it is sent and an identification of the business, other entity, or individual sending the message, and the telephone number of the sending machine or such business, other entity, or individual.

In order to program this information into your facsimile machine, see your fax software documentation.

Telephone Consumer Guidelines (Canada)

Please refer to your telephone directory under ‘Privacy Issues’ and/or ‘Terms of Service.’ For more detailed information, please contact:

CRTC
Terrasses de la Chaudiére, Tour centrale
1 promenade du Portage, 5 étage Hull PQ K1A 0N2.

This Class B digital apparatus complies with Canadian ICES-003.

Cet àppareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

Disposal of Lithium-Ion Battery

You can return your unwanted lithium-ion batteries to your nearest Sony Service Center or Factory Service Center.

✍ In some areas the disposal of lithium-ion batteries in household or business trash may be prohibited.

For the Sony Service Center nearest you, call 1-888-476-6972 in the United States or 1-800-961-7669 in Canada. Also use Sony Customer Service on the web at http://www.sony.com/pcsupport.

⚠ **Do not handle damaged or leaking lithium-ion batteries.**

Ne pas manipuler les batteries au lithium-ion qui fuient ou sont endommagées.

⚠ **Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Discard used batteries according to the manufacturer's instructions.**

Une batterie non conforme présente un danger d'explosion. La remplacer seulement par une batterie identique ou de type équivalent recommandé par le fabricant. Évacuer les batteries usées selon les directives du fabricant.

⚠ **The battery pack used in this device may present a fire or chemical burn hazard if mistreated. Do not disassemble, heat above 212°F (100°C) or incinerate. Dispose of used battery promptly.**
Keep away from children.

La manutention incorrecte du module de batterie de cet appareil présente un risque d'incendie ou de brûlures chimiques. Ne pas démonter, incinérer ou exposer à une température de plus de 100°C. Évacuer promptement la batterie usée. Garder hors de portée des enfants.

Industry Canada Notice

NOTICE: The Industry Canada label identifies certified equipment. This certification means that the equipment meets certain telecommunications network protective, operational and safety requirements as prescribed in the appropriate Terminal Equipment Technical Requirements document(s). The Department does not guarantee the equipment will operate to the user's satisfaction.

Before installing this equipment, users should ensure that it is permissible to be connected to the facilities of the local telecommunications company. The equipment must also be installed using an acceptable method of connection.

The customer should be aware that compliance with the above conditions may not prevent degradation of service in some situations.

Repairs to certified equipment should be coordinated by a representative designated by the supplier. Equipment malfunctions or any repairs or alterations made by the user to this equipment may give the telecommunications company cause to request that the user disconnect the equipment.

Users should ensure for their own protection that the electrical ground connections of the power utility, telephone lines and internal metallic water pipe system, if present, are connected together. This precaution may be particularly important in rural areas.

CAUTION: Users should not attempt to make such connections themselves, but should contact the appropriate electrical inspection authority, or electrician, as appropriate.

NOTICE: The Ringer Equivalence Number (REN) assigned to each terminal device provides an indication of the maximum number of terminals allowed to be connected to a telephone interface. The termination on an interface may consist of any combination of devices subject only to the requirement that the sum of the Ringer Equivalence Numbers of all the devices does not exceed 5. The Ringer Equivalence Number for this equipment is 0.2.

Avis de L'Industrie Canada

AVIS: L'étiquette d'Industrie Canada identifie le matériel homologué.

Cette étiquette certifie que le matériel est conforme aux normes de protection, d'exploitation et de sécurité des réseaux de télécommunications, comme le prescrivent les documents concernant les exigences techniques relatives au matériel terminal. Le Ministère n'assure toutefois pas que le matériel fonctionnera à la satisfaction de l'utilisateur.

Avant d'installer ce matériel, l'utilisateur doit s'assurer qu'il est permis de le raccorder aux installations de l'entreprise locale de télécommunication. Le matériel doit également être installé en suivant une méthode acceptée de raccordement. L'abonné ne doit pas oublier qu'il est possible que la conformité aux conditions énoncées ci-dessus n'empêche pas la dégradation du service dans certaines situations.

Les réparations de matériel homologué doivent être coordonnées par un représentant désigné par le fournisseur. L'entreprise de télécommunications peut demander à l'utilisateur de débrancher un appareil à la suite de réparations ou de modifications effectuées par l'utilisateur ou à cause de mauvais fonctionnement.

Pour sa propre protection, l'utilisateur doit s'assurer que tous les fils de mise à la terre de la source d'énergie électrique, des lignes téléphoniques et des canalisations d'eau métalliques, s'il y en a, sont raccordés ensemble. Cette précaution est particulièrement importante dans les régions rurales.

Avertissement: L'utilisateur ne doit pas tenter de faire ces raccordements lui-même; il doit avoir recours à un service d'inspection des installations électriques, ou à un électricien, selon le cas.

AVIS: L'indice d'équivalence de la sonnerie (IES) assigné à chaque dispositif terminal indique le nombre maximal de terminaux qui peuvent être raccordés à une interface.

La terminaison d'une interface téléphonique peut consister en une combination de quelques dispositifs, à la seule condition que la somme d'indices d'équivalence de la sonnerie de tous les dispositifs n'excède pas 5.

L'indice d'équivalence de la sonnerie de ce matériel est de 0.2.

Welcome

Congratulations on your purchase of the Sony VAIO® Notebook. Sony has combined leading-edge technologies in audio, video, computing, and communications to provide you with state-of-the-art personal computing.

Features

Here are some of the features your notebook offers:

✍ For complete specifications of your VAIO Notebook, see "Specifications" in the online *VAIO® Notebook User Guide*.

- **Exceptional performance —** Your notebook includes a Mobile Intel® Pentium® III processor featuring Intel® SpeedStep™ technology* and a V.90-compatible K56flex modem.†
- **Portability —** Rechargeable battery pack provides hours of use without AC power, even while you use the optional docking station.
- **Sony audio and video quality —** High-quality MPEG2 video, which supports full-screen display (12.1-inch Active Matrix LCD screen) and enables you to take advantage of today's advanced multimedia applications, games, and entertainment software.
- **Microsoft® Windows® Operating System —** Your system includes Microsoft® Windows® Millennium Edition or Microsoft® Windows® 2000 Professional.
- **Communications —** Access popular online services, send e-mail, browse the Internet, and use fax features.

* Processor may be reduced to a lower operating speed when operating on battery power.

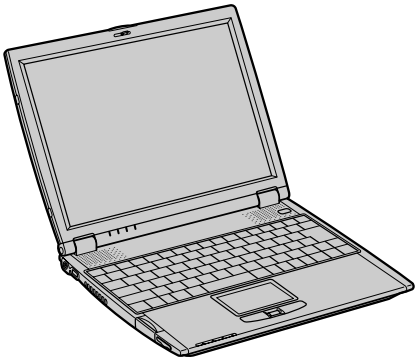
† Actual upload and download speeds may vary due to line conditions, ISP support, and government regulations.

Unpacking Your Notebook

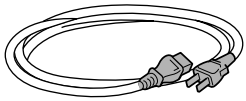
Remove the following hardware, documentation, and CDs from the box:

Hardware

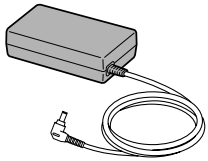
Main Unit



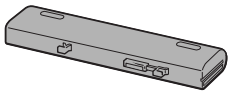
Power Cord



AC Adapter



Rechargeable Battery Pack



Manuals

- ***VAIO® R505 SuperSlim Pro™ Notebook Quick Start* —** Contains details on unpacking and setting up your notebook, supplementary updates, adding memory, and software information.
- **Microsoft® Windows® Millennium Edition *Getting Started* or Microsoft® Windows® 2000 Professional *Getting Started* —** Explains how to use the basic features of this latest Windows operating system.

Software CDs

- **Microsoft® Word 2000 —** Allows you to reinstall Microsoft Word 2000 to your new Sony notebook.

Recovery CDs

- **Application Recovery CD(s) —** Allows you to reinstall individual applications if they become corrupt or are erased.
- **Driver Recovery CD(s) —** Allows you to reinstall individual device drivers and repair software applications if they become corrupt or are erased.
- **System Recovery CD(s) —** Allows you to restore the software titles that shipped with your notebook if they become corrupt or are erased. It can be used only to restore the hard disk of the Sony notebook you purchased.

✍ To use these recovery CDs, you need to purchase either the optional PCGA-DSM5 CD-RW/DVD Docking Station, the optional PCGA-DSD5 DVD Docking Station, or the PCGA-CD51/A drive.

Other

- Packet containing special product offers

Notes on Use

You will be able to use your notebook as a portable device in a variety of environments. Whenever possible, you should comply with the guidelines listed below.

✍ For additional information on your VAIO Notebook, click Start on the Windows® taskbar and select Help Center and VAIO Documentation to access the online VAIO Notebook User Guide.

Setting Up Your Notebook

- Do not place your notebook in a location subject to:
  - Heat sources, such as radiators or air ducts
  - Direct sunlight
  - Excessive dust
  - Moisture or rain
  - Mechanical vibration or shock
  - Strong magnets or speakers that are not magnetically shielded
  - Ambient temperature of more than 95º F (35º C) or less than 41º F (5º C)
  - High humidity
- Do not place electronic equipment near your notebook. The notebook's electromagnetic field may cause a malfunction.
- Provide adequate air circulation to prevent internal heat buildup. Do not place your notebook on porous surfaces such as rugs or blankets, or near materials such as curtains or draperies that may block its ventilation slots. Leave a space of at least 8 inches (20 cm) behind the back panel of the notebook.
- If the notebook is brought directly from a cold location to a warm one, moisture may condense inside your computer. In this case, allow at least an hour before turning on your notebook. If any problems occur, unplug your notebook, and contact your Sony Service Center.
- The notebook uses high-frequency radio signals and may cause interference to radio or TV reception. Should this occur, relocate the notebook a suitable distance away from the set.

- Use only specified peripheral equipment and interface cables; otherwise, problems may result.
- Do not use cut or damaged connection cables.
- Your notebook will not work with party lines, cannot be connected to a coin-operated telephone, and may not work with multiple phone lines or a private branch exchange (PBX).
- If the telephone company makes a service call to your home or office and determines that your notebook is responsible for a problem, the telephone company may bill you for the service call. Also, if you do not disconnect your notebook when it is adversely affecting the telephone line, the telephone company has the right to disconnect your service until you correct the problem.

Handling Your Notebook

- Clean the cabinet with a soft, dry cloth or a soft cloth lightly moistened with a mild detergent solution. Do not use any type of abrasive pad, scouring powder, or solvent such as alcohol or benzine, as these may damage the finish of your notebook.
- Should any solid object or liquid fall into the notebook, shut down your computer and then unplug it. You may want to have the notebook checked by qualified personnel before operating it any further.
- Do not drop the notebook or place heavy objects on top of the notebook.

Cleaning Your Notebook

- Make sure to disconnect the power cord before cleaning the notebook.
- Avoid rubbing the LCD screen as this can damage the screen. Use a soft, dry cloth to wipe the LCD screen.
- Clean the notebook with a soft cloth lightly moistened with a mild detergent solution. Do not use any type of abrasive pad, scouring powder or solvent, such as alcohol or benzine.

Handling the LCD Screen

- Do not leave the LCD facing the sun as it can damage the LCD. Be careful when using the notebook near a window.

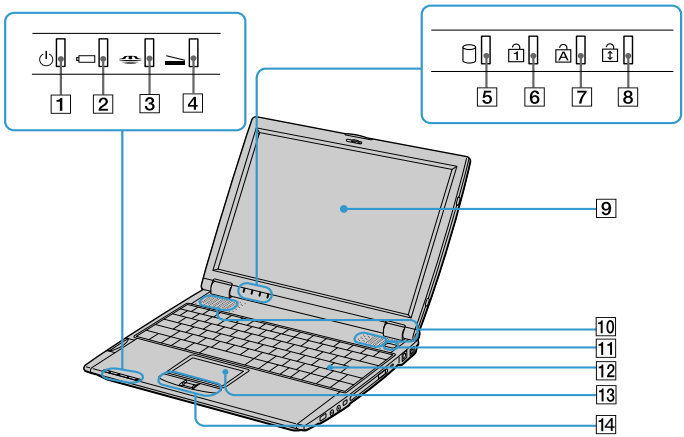
- Do not scratch the LCD or exert pressure on it. This could cause a malfunction.
- Using the notebook in low temperature conditions may produce a residual image on the screen. This is not a malfunction. When the notebook returns to normal temperature, the screen returns to normal.
- The screen becomes warm during operation. This is normal and does not indicate a malfunction.
- The LCD is manufactured using high-precision technology. You may, however, see tiny black points and/or bright points (red, blue, or green) that continuously appear on the LCD. This is a normal result of the manufacturing process and does not indicate a malfunction.

Setting Up Your VAIO® Notebook

This section describes the controls and connectors on your VAIO Notebook, how to connect your notebook to a power source, and how to start and shut down your notebook.

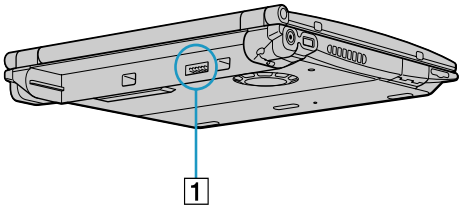
Locating Controls and Connectors

Front



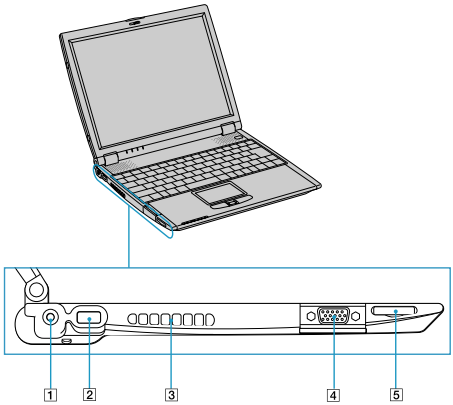
1	Power indicator	8	Scroll lock indicator
2	Battery indicator	9	LCD screen
3	Memory Stick® indicator	10	Speakers
4	Docking station indicator	11	Power button
5	Hard disk drive indicator	12	Keyboard
6	Num lock indicator	13	Touchpad
7	Caps lock indicator	14	Left and right buttons and center Jog Dial control

Back



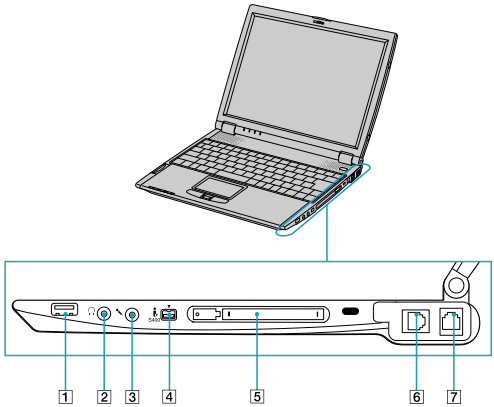
1	Battery connector

Left



1	DC In connector
2	USB connector
3	Air vent
4	Monitor connector
5	Memory Stick® slot

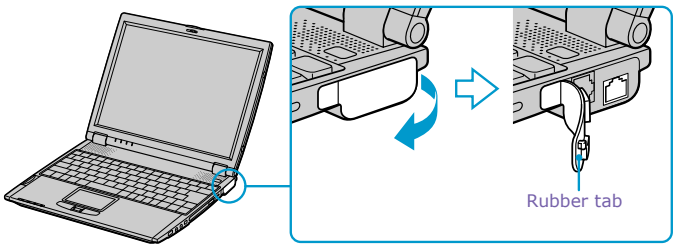
Right



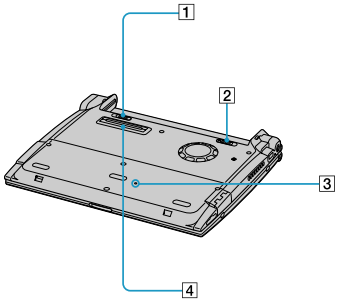
1	USB connector	5	PC card slot
2	Headphone jack	6	Ethernet connector
3	Microphone jack	7	Phone line jack
4	i.LINK® (IEEE1394) S400 connector		

Warning: Connect only 10BASE-T and 100BASE-TX cables to the Ethernet connector. Do not connect to the Ethernet connector any other type of network cable or telephone line. Connecting cables other than those listed above may result in an electric current overload and could cause a malfunction, excessive heat, or fire in the connector. To connect the unit to the network, contact your network administrator.

Gently pull the rubber tab away from the notebook to find the Ethernet connector and phone line jack.



Bottom



1	Battery unlock lever	3	Reset switch
2	Battery unlock/lock lever	4	Docking connector

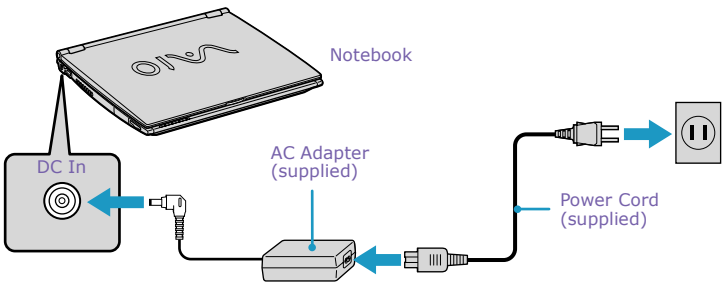
Connecting a Power Source

You can use either AC power or a rechargeable battery pack as a power source.

Using the AC Adapter

1. Plug the cable attached to the AC adapter into the DC In connector on the computer.
2. Plug one end of the power cord into the AC adapter.
3. Plug the other end of the power cord into an AC outlet.

Connecting AC Adapter



Notes on the AC Adapter

- Your notebook operates on 100-240V AC 50/60 Hz.
- Do not share the AC outlet with other power-consuming equipment, such as a copy machine or shredder.
- You can purchase a power strip with a surge protector. This device prevents damage to your notebook caused by sudden power surges such as those that may occur during an electrical storm.
- Do not place heavy objects on the power cord.
- To disconnect the cord, pull it out by the plug. Never pull the cord itself.
- Unplug your notebook from the wall outlet if you will not be using the computer for a long time.
- When the AC adapter is not used, unplug it from the AC outlet.
- Use only the AC adapter supplied. Do not use any other AC adapter.

Using Battery Power

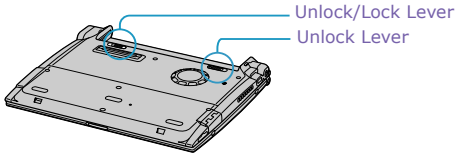
You can use a battery pack as a source of power. The battery pack that comes with your notebook is not fully charged at the time of purchase. Follow the steps below to insert and charge the battery pack.

To insert the battery pack

You can insert or remove the battery pack without turning off the notebook when your notebook is connected to the AC adapter. Before inserting or removing a battery pack, close the cover.

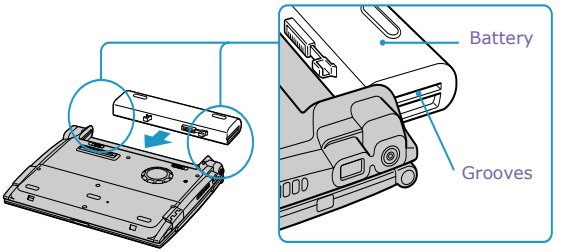
1 Switch the unlock/lock lever on the bottom of the notebook to the **UNLOCK** position.

Unlock/Lock Lever



2 Align the grooves and tabs on the battery with the tabs and notches on the back of the notebook, and then slide the battery toward the computer until it clicks into place.

Inserting Battery Pack



3 Slide the lock lever into the LOCK position to secure the battery on the notebook.

To charge the battery pack

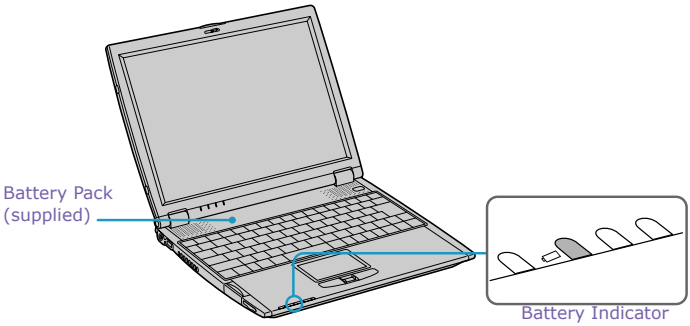
1 Connect the AC adapter to the notebook.

2 Insert the battery pack.

The battery is charging whether the notebook is powered on or off. The battery indicator light flashes in a double-blink pattern as the battery charges. When the battery is 85 percent full, the battery indicator light turns off. This process takes approximately one and one half hours if the notebook is powered off. To charge the battery completely, continue charging it for an additional hour.

The ▭ battery indicator light on the front of the notebook indicates the status of the battery pack.

Battery Indicator Light



Battery Indicator Light Status	Meaning
On	The notebook is using battery power.
Single blink	The battery is running out of power.
Double blink	The battery is charging.
Off	The notebook is using AC power.

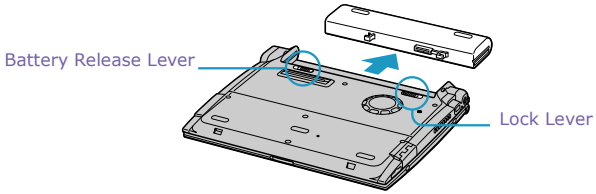
✍ Both the battery and power indicators blink when the battery is running out of power.

To remove the battery pack

You can insert or remove the battery pack whether your notebook is on or off. However, if you insert or remove the battery pack while your notebook is on, make sure the computer is connected to the AC adapter.

1. Close the cover of the notebook.
2. Slide the lock lever to the **UNLOCK** position.
3. Slide the release lever to the **UNLOCK** position and slide the battery away from the notebook.

Removing Battery Pack



✍ You may lose data if you remove the battery pack while the notebook is on and not connected to the AC adapter, or if you remove the battery while the notebook is in a power saving mode.

Additional Notes On Batteries

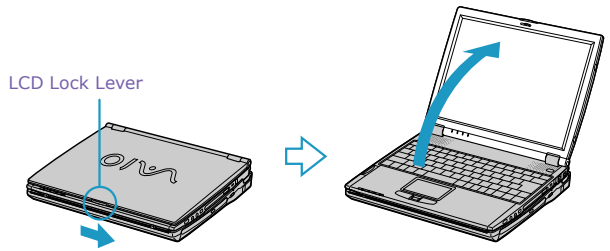
- Keep the battery pack in the notebook while it is connected to AC power. The battery pack continues to charge while you are using the computer.
- If your battery level falls to less than 10 percent, you should either attach the AC adapter to recharge the battery or shut down your notebook and insert a fully charged battery.
- You can extend battery life by changing the power management modes in the PowerPanel utility. See “Using Power Saving Modes” in the online *VAIO® Notebook User Guide*.
- The battery pack supplied with your notebook is a lithium-ion battery and can be recharged at any time. Charging a partially discharged battery does not affect battery life.

- The battery indicator light is on while you use the battery pack as a power source. When battery life is nearly depleted, the battery indicator flashes.
- Your notebook may not enter Hibernate mode when the battery life is low if certain software applications are active or if certain peripheral devices are connected. To avoid loss of data when using battery power, save your data frequently and manually activate a power management mode.
- Never leave the battery pack in temperatures above 140° F (60° C), such as under direct sunlight or in a car parked in the sun.
- Battery life is shorter in a cold environment. This is due to decreased battery efficiency at low temperatures.
- Charge the batteries at temperatures between 50° F and 80° F (10° C to 30° C). Lower temperatures require a longer charging time.
- While the battery is in use or being discharged, the battery pack heats up. This is normal and is not cause for concern.
- Keep the battery pack away from all sources of heat.
- Keep the battery pack dry.
- Do not open or try to disassemble the battery pack.
- Do not expose the battery pack to any mechanical shock.
- If you are not using the notebook for an extended period of time, remove the battery pack from the computer to prevent damage to the battery.
- If, after fully charging the battery pack, the battery power is still low, the battery pack may be reaching the end of its life and should be replaced.
- You do not need to discharge the battery before recharging.
- If you have not used the battery pack for a considerable amount of time, recharge the battery.

Starting Your Notebook

1 Slide the LCD lock lever in the direction of the arrow, and lift the cover.

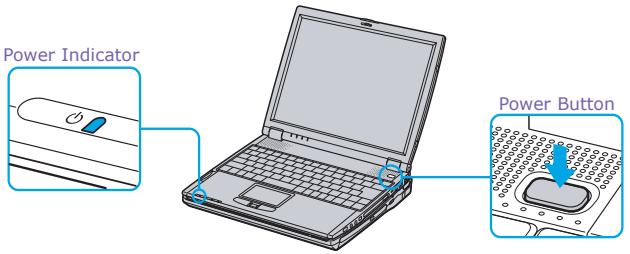
Opening Notebook



2 Press the power button located on the right side of the notebook until the green power indicator light turns on.

✍ (Windows Me™ only) The VAIO InitManager dialog box appears, when starting your notebook for the first time. Select "OK" to begin initial setup. If you do not execute the initial setup, you cannot use part of the VAIO original hardware functions, such as center Jog Dial® control, Power Management tool, touchpad scroll function, and keyboard shortcut key function combined with the Fn key.

Turning on Notebook



✍ If you hold the power button in the On position for more than four seconds, the notebook turns off.

3 If necessary, adjust the brightness controls for the LCD display. To decrease the brightness, press Fn+F5 and then the down or left arrow key. To increase the brightness, press Fn+F5 and then the up or right arrow key.

Shutting Down Your Notebook

To avoid potential loss of data, follow these steps to shut down your notebook.

1. Click the Start button on the Windows® taskbar.
2. Click Shut Down at the bottom of the Start menu to display the Shut Down Windows dialog box.
3. Select Shut down.
4. Click OK.

Respond to any prompts warning you to save documents.

5. Wait for your notebook to turn off automatically. It is off when the power indicator light turns off.
6. Turn off any peripherals connected to your notebook.

During a period of inactivity, you can conserve battery life by using Standby mode. See "Controlling Power Management" in the online *VAIO® Notebook User Guide* for more information.

If you are unable to shut down your notebook:

1. Close or end all operations.
   - Close all applications.
   - Remove the PC cards.
   - Disconnect USB devices.
2. Then, restart the notebook. You can restart your computer by pressing the Ctrl+Alt+Delete keys simultaneously.

If you are still unable to shut down the notebook, you can press the power button and hold it for four seconds. This operation may result in data loss.

Adding Memory

In the future you may want to install memory modules to expand the functionality of your notebook. If your notebook has 64 MB of memory, you can increase memory to 192 MB; if your notebook has 128 MB of memory, you can increase memory to 256 MB. For memory upgrades, use only PC100 (CL2) SDRAM SO-DIMM (gold lead contacts).

Related Safety Guidelines

Sony recommends memory upgrades be performed by an authorized Sony Service Center. To find the nearest center or agent, see http://www.sony.com/pcsupport.

Make sure that you observe the proper safety precautions when you install a memory module in your computer. See the bulleted list below. Be careful when adding memory. Mistakes when installing or removing a memory module may cause a malfunction.

- The procedures described below assume familiarity with the general terminology associated with personal computers and with the safety practices and regulatory compliance required for using and modifying electronic equipment.
- Disconnect the system from its power source and from any telecommunications links, networks, or modems before you open the system or follow any of the procedures described below. Failure to do so may result in personal injury or equipment damage.
- Electrostatic discharge (ESD) can damage disk drives and other components. Perform the procedures described below only at an ESD workstation. If such a station is not available, do not work in a carpeted area, and do not handle materials that produce or hold static electricity — such as cellophane

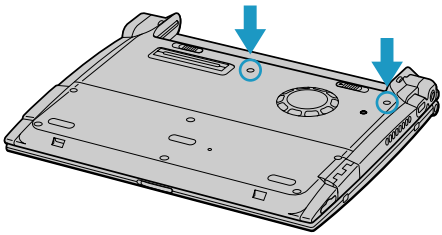
wrappers. Ground yourself by maintaining contact with an unpainted metal portion of the chassis while performing the procedure.

- Do not open the memory module package until you are ready to install the module. The package protects the module from ESD.
- Use the special bag for preventing ESD or use aluminum foil when you store the memory module.

To Install a Memory Module

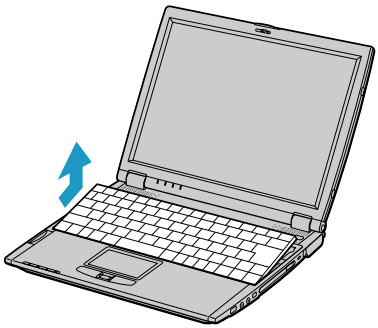
1. Shut down your notebook and disconnect all peripheral devices, such as your printer.
2. Unplug the notebook and remove the battery packs.
3. Wait until the notebook cools down. Then unscrew the two screws with the ⇐ mark on the bottom of your notebook.

Bottom Panel Screws



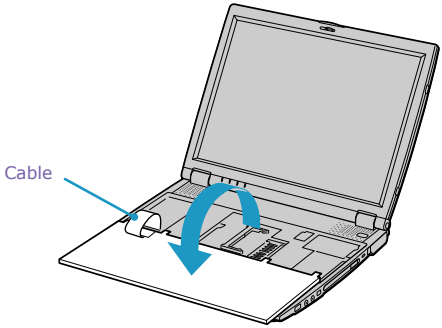
4 Slide the LCD lock lever and lift the cover. Slide the keyboard toward the LCD display, then lift it away slightly.

Lifting the Keyboard



5 Lift the keyboard from the LCD display side, then gently turn it over on the touchpad space. Be careful not to detach the cable when lifting the keyboard.

Turning the Keyboard



6 You must remove the existing memory module. Follow the instructions in “To Remove a Memory Module” on page 33.

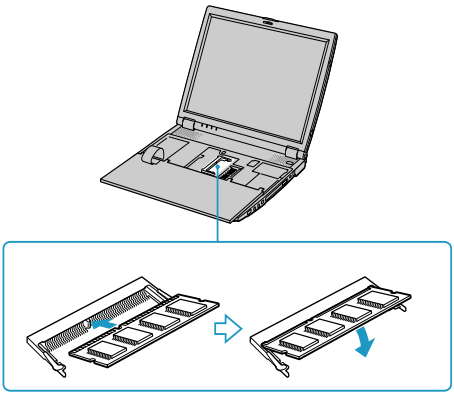
7 Remove the memory module from its packaging.

8 Install the memory module.

✍ Note the following:

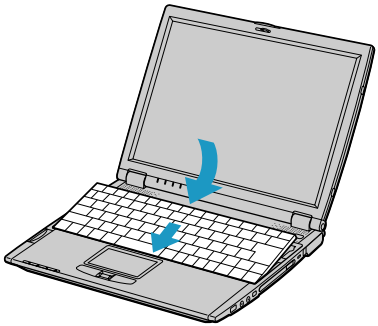
- ❑ Be careful not to touch the other components on the motherboard.
- ❑ Be sure that both ends of the memory module click.

Installing the Memory Module



9 Gently replace the keyboard, then press it into your notebook. Be careful not to detach the cable when lifting the keyboard.

Replacing the Keyboard



10 Close the notebook cover, then tighten the screws on the bottom of the computer.

To Remove a Memory Module

1. Perform steps 1 to 5 of "To Install a Memory Module" on page 30.
2. Touch a metal object (such as the connector panel on the back of your notebook) to discharge static electricity.
3. Remove the memory module.
4. Perform the remaining steps 8 and 9 of "To Install a Memory Module" on page 30.

About the Software on Your Notebook

Your VAIO® Notebook is ready to help you work, play, learn, and communicate as soon as you turn it on. This section provides you the following:

- *An overview of the various software that come with your notebook and the activities you can perform with your software*
- *Details on your Sony application, driver, and system recovery CDs*
- *Software support information*

Overview of the Software on Your Notebook

Adobe® Acrobat Reader™

Adobe Systems Inc.

Acrobat Reader software allows you to view, navigate, and print electronic documents in Adobe Portable Document Format (PDF) — an open file format that is intended to preserve the fidelity of documents created on all major computer platforms.

Adobe PhotoDeluxe® Home Edition (Windows Me™ only)

Adobe Systems Inc.

Create amazing photo effects with Adobe PhotoDeluxe. Without learning complex software, you can enhance, restore, and be creative with your photos. The software includes built-in guided activities, stock photos, clip art, and templates to assist you.

America Online® (Windows® Me only)

America Online Inc.

America Online is a popular Internet online service. Stay in touch with family and friends with easy-to-use e-mail, manage your personal finances, get the latest news and sports scores, and chat with thousands of others who share your interests.

ArcSoft® PhotoPrinter™ 2000 Pro (Windows® Me only)

ArcSoft Inc.

ArcSoft PhotoPrinter 2000 Pro is an easy-to-use, advanced printing program that lets you quickly lay out multiple images in multiple sizes on a single sheet of paper. PhotoPrinter Pro offers a wide selection of templates including landscape, portrait, free style, mixed sizes, custom templates and more. The application includes enhancement tools and special effects for improving photos while giving you the ability to add text to any image.

CompuServe® 2000 (Windows® Me only)

CompuServe

CompuServe is the most comprehensive source of organized business and educational information online today. CompuServe allows you to access the vastness of the Internet, without wasting time wading through it. Maximize your time online with CompuServe.

Drag'n Drop CD

DigiOn Inc. and Easy Systems Japan Ltd.

Drag'n Drop CD is designed to be the most simple software to make your own CD. Users can create their own best AudioCD, or data CD that can be read in many PCs. With Drag'n Drop CD you can also create your own backup CD from the original CD that you own.

DVgate™

Sony Electronics Inc.

Connect a digital video camera recorder to the i.LINK® connector and capture your own video clips and still images. You can edit the clips from your video, add others, and combine clips into new movie segments. You can also save your images in a variety of popular file formats.

EarthLink™ Network TotalAccess® (Windows® Me only)

EarthLink Network Inc.

EarthLink is an Internet Service Provider that supplies access, information, and assistance to its customers, introducing them to the Internet. Member benefits include e-mail, newsgroups, a personal start page, a free 6 MB web site, a member newsletter, and 24-hour technical support.

Jog Dial Utility

Sony Electronics Inc.

Jog Dial Utility enables you to easily scroll, launch applications, access settings, and perform other useful functions by manipulating the center Jog Dial™ control, which is located near the touchpad.

McAfee® VirusScan®

Network Associates Inc.

Protect your computer from viruses. VirusScan can detect viruses from floppy disks, Internet downloads, e-mail attachments, intranets, shared files, CD-ROMs, and online services.

Media Bar™

Sony Electronics Inc.

Media Bar software is your all-in-one solution for audio/video playback. Media Bar software handles all common computer multimedia formats and controls selected Sony devices. In addition to audio/video library cataloging and playlist management, Media Bar software includes digital video quality control and effects features. Media Bar software seamlessly integrates a variety of new media formats with an easy-to-use software interface.

Microsoft® Internet Explorer (Windows® Me only)

Microsoft Corporation

Internet Explorer delivers the web the way you want it. It is safe, easy to use, and you can personalize how you access the web. Outlook Express and other tools in Internet Explorer also help you have a great experience when you are on the web.

Microsoft® Word 2000

Microsoft Corporation

Microsoft Word 2000 makes it easy to create common web, e-mail, and print documents for use around the world. It embraces HTML as a first-class file format and extends this software's ease-of-use to the web and e-mail. Word 2000 also extends that ease-of-use to international users, making it simple to create multilingual documents.

MovieShaker™

Sony Electronics Inc.

Sony's original MovieShaker software creates personal movies that have transitions, background music and text. Just import your video clips and "shake" with the click of a mouse. Your personal movies are easy to create and fun to share with family and friends. (See "MovieShaker™" on page 40.)

Netscape Communicator®

Netscape Communications Corporation

Netscape Communicator is an all-in-one Internet tool that makes it easy to browse the web, send Internet e-mail, chat, read newsgroups and compose great web documents.

OpenMG™ Jukebox

Sony Electronics Inc.

OpenMG Jukebox software enables you to import digital audio files by downloading audio files from Electronic Music Distribution (EMD) services over digital networks, such as the Internet. You can record audio CDs onto your hard drive in a variety of formats.

PictureGear™

Sony Electronics Inc.

This image management software displays images from your hard drive, a Sony Digital Still Camera, or a Sony Mavica® Camera. The images appear in a convenient light-table format, so that you can easily view the contents of an entire folder. (See "PictureGear™" on page 44.)

PowerPanel

Sony Electronics Inc.

The PowerPanel utility controls the power management of your notebook computer and provides key information about system activity and battery life. Automatic power management selects the most appropriate profile, depending on the application with which you are working and the conditions of use. See the "PowerPanel" chapter or the PowerPanel Help file for details.

Prodigy Internet®

Prodigy Communications Corporation

An online service that helps you find what you need online faster and smarter. Prodigy delivers powerful online content such as sports scores, stock quotes, news, and easy access to Excite, plus quality customer service, all at a competitive price.

Quicken® 2001 New User Edition (Windows® Me only)

Intuit Inc.

Quicken is a fast, easy way to organize your finances. Quicken works just like your checkbook, so it is easy to learn and use. Quicken manages all your finances, bank accounts, credit cards, investments, and loans. You can even pay your bills online.

QuickTime™

Apple Computer Inc.

QuickTime is the Apple technology that makes video, sound, music, 3D, and virtual reality come alive for your Internet browser and Windows.

RealPlayer® 7 Basic

RealNetworks Inc.

RealPlayer is the RealNetworks video and audio player that lets you access 2,500 radio stations featuring music, news and sports.

RealProducer® G2

RealNetworks Inc.

RealProducer converts your audio and video files, or live feeds, into RealAudio and RealVideo for the Internet or your intranet. RealProducer is easy to use, gives you better control over your content, and is packed with exclusive features. Featuring support for CD-quality RealAudio 8 and VHS-quality RealVideo 8, RealProducer is an excellent choice for both beginners and pros.

Smart Capture

Sony Electronics Inc.

Smart Capture is a fun new way to send multimedia messages via e-mail. Smart Capture manages the i.LINK connection between your computer and a Sony Digital Handycam® camcorder that supports the i.LINK interface. It enables you to capture compressed video or still images that you can save or share via e-mail. A smart solution to computer, digital audio/video and network convergence.

Smart Connect (Windows® 2000 only)

Sony Electronics Inc.

Smart Connect enables you to use an i.LINK cable to connect your VAIO® Notebook to another computer that supports Smart Connect. You can then use one computer to copy, delete, and edit files on the other computer. You can also print from a printer attached to either computer.

VAIO Action Setup

Sony Electronics Inc.

VAIO Action Setup manages the settings for your computer's Shortcut keys and i.LINK interface.

VAIO Support Agent

Sony Electronics Inc.

VAIO Support Agent provides immediate, interactive, on-line support.

WinDVD®

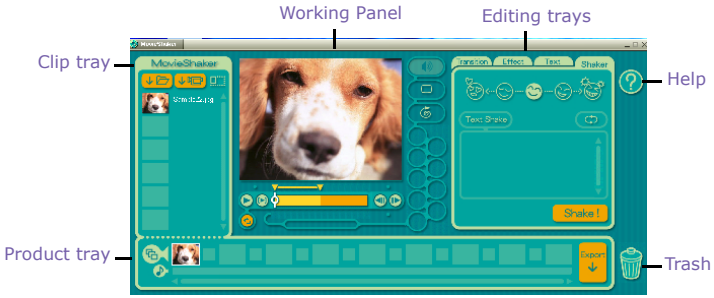
InterVideo Inc.

WinDVD is a simple-to-use DVD player that plays DVD titles, combining all the features you would expect to find in a standard consumer DVD player, in addition to some very advanced functionality, such as full VCD 2.0 support, full precision video decode, a choice of user interfaces, and video display options. WinDVD automatically determines the type of disc in the DVD drive and uses the correct playback method.

MovieShaker™

This application can be used to create fun and innovative movies without any knowledge of film editing. In a few simple steps, motion pictures can be combined with special effects, still images (pictures), and music files and then saved in a format most computers can play.

Main Window



Importing Images and Sound Clips

1. Click (File Import) or (DV Import).
2. Find the file you want to add.
3. Select the file.
4. Click Open. The file is added to the Clip tray.

Importing files over 75 seconds in length may cause MovieShaker application to stop responding.

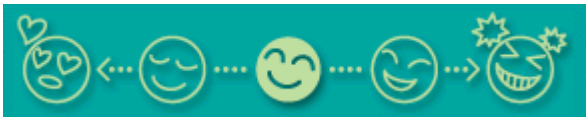
Create a Movie using Shaker

After adding clip(s) to the Clip tray, you can create a short movie using the Shaker feature. Shaker randomly select clips from the Clip tray to create a 30-second scene.

1 Click the Shake tab.

2 Select a mood by clicking a face in the Shaker tray.

Shaker Tray



3 Click Shake ! . A 30-second scene is automatically generated and saved to the Product tray.

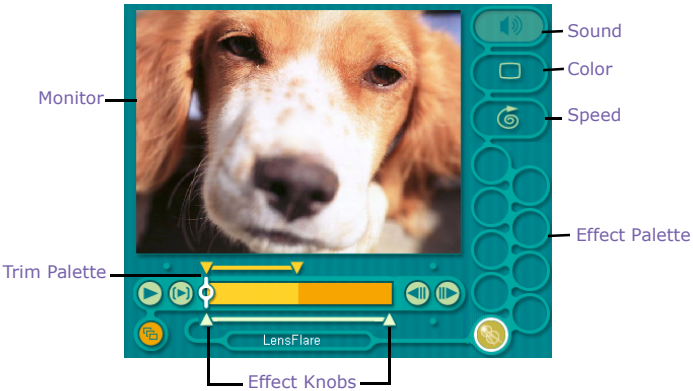
4 To preview, switch the Work Panel to Product tray mode and press play.

✍ Scenes created with Shaker begin with black frame and after processing are placed in the first available slot on the Product tray. Limit the number of scenes placed on the Product tray to 10 or less. MovieShaker application may stop responding if too many scenes are placed on the Product tray.

Editing Clips and Scenes

You can edit your movie by adding effects and text, adjusting the color and contrast, and modifying the length of clips.

Working Panel



Adding effects to a scene or a clip:

1. Double-click the clip or scene to move it to the Working Panel.
2. Select the Effects tab from the Editing tray.
3. Drag and drop the Effect you want to add from the Effects tray to the Effects palette on the Working Panel.

To preview an Effect, click on the clip in the Working panel monitor. Your clip displays with the new effect on the Effect tray monitor.

4. See Help for instructions on adjusting effect duration and replaying clips/scenes.

Saving a Movie

1. Verify that the clip(s) you want to save is on the Product tray. See Help menu for more details on saving movies.
2. Click Export.
3. Select the format in which you want the document to be saved.
4. Click Next.
5. Locate the folder to which you want the file saved.
6. Name the file.
7. Click Save.

⚠ **Exporting movies may take a long time to complete — Saving movies as Quick-Save is the fastest, and a DV (Digital Video) takes the longest. MovieShaker can play video files up to 65 MB in length.**

✍ For DV playback and smooth video playback, we recommend the following resolution/refresh rates: 1024 x 768/75 Hz or lower.

PictureGear™

PictureGear is a digital image management application that allows you to see all the images stored in any directory on your notebook. Thumbnail views provide quick reminders of your pictures. Brighten, contrast, enhance, resize, crop, and color-correct your pictures. Create panoramic views, animations, screen savers, wallpaper, still pictures from MPEG, and even HTML photo albums.

Managing Your Pictures

Use the collection feature to manage your pictures.

1. Click the Folder tab and browse to locate your pictures.
2. Select the pictures you want to have in a collection.
3. From Collection menu, select Create New Collection.
4. Enter a name for the collection and then click OK.

Creating a Photo Album

1. Select the pictures you want to use to make an album.
2. From the Utilities menu, select Album Maker.
3. Choose the type of Album you want and click OK.
4. Now add more pictures, frames, text, and effects.
5. When you are finished, select Create Album in File menu or click the Create Album icon on the toolbar.
6. Designate the folder where you want to save the Album.
7. Enter the Target Album name, select Thumbnails and click OK.
8. The new album can be viewed using most internet browsers.

Using Panorama Maker

Panorama Maker stitches a group of still images into a 360-degree panoramic picture. The source images should be the same size and overlap 20 percent.

How to stitch a panoramic picture:

1 Gather the source images into the same folder or collection.

2 Select the images you want to use.

✍ We recommend 12 landscaped or 16 portrait pictures.

3 From the Utilities menu select Panorama Maker.

4 Select the correct lens and click OK. (If 35mm lens is selected, the prompt does not appear; to select a different lens, click the lens icon.)

5 Click the panoramic icon, near the bottom of the window.

6 Click Full Stitch.

Making Still Images and Panoramic from MPEG

1 Select the MPEG file.

2 From the Movie/Sound menu, select Scene break down.

3 Then select Movie Stitch to create a panoramic picture.

Application, Driver, and System Recovery CDs

Your notebook comes with the following application, driver, and system recovery CDs.

About Your Recovery CDs

Application Recovery CD(s)

Sony Electronics Inc.

This program allows you to reinstall individual applications. Use it to restore corrupted or accidentally erased files.

Driver Recovery CD(s)

Sony Electronics Inc.

This program allows you to reinstall individual device drivers. Use it to restore corrupted or accidentally erased files.

System Recovery CD(s)

Sony Electronics Inc.

This program allows you to restore the software titles that shipped with your notebook if they become corrupted or are erased accidentally. Use it to restore only the hard disk of this Sony notebook.

Using the Application Recovery CD(s)

The Application Recovery CD(s) allows you to reinstall individual applications if they become corrupted or are accidentally erased. Reinstalling an individual software title may correct a problem you are experiencing with your computer or software application; you may not need to reinstall the entire contents of your hard drive. If you need to reinstall all the software titles that shipped with your computer, use the System Recovery CD(s). See “Using the System Recovery CD(s)” on page 48.

You can also use the Application Recovery CD to install Windows 2000 drivers on your notebook.

✍ You must be in Windows to run the Application Recovery CD. If you have any questions on using the Application Recovery CD, contact Sony Customer Support.

To use the Application Recovery CD(s)

1. Turn on your notebook. If your notebook is already on, close all applications.
2. When the Windows desktop appears, insert the Sony Application Recovery CD in the optical drive. The Application Recovery utility loads automatically.
3. When the Application Recovery menu appears, select the icon for the application you want to restore and then follow the on-screen instructions to complete the recovery process.

✍ Your system may include one or two Application Recovery CDs. If you have two Application Recovery CDs, insert the first CD to run the Application Recovery program. You may be prompted to insert the second CD, depending on the application you wish to restore.

Using the Driver Recovery CD(s)

The Driver Recovery CD utility allows you to reinstall individual drivers and repair software applications if they become corrupted or are accidentally erased. You can reinstall an individual driver to correct a problem that you are experiencing with your computer, hardware, or software application. VAIO Support Agent uses a vault feature on the Driver Recovery CD(s) to repair software applications.

✍ You must be in Windows to run the Driver Recovery CD utility.

To Use the Driver Recovery CD(s)

1. Turn on your notebook. If your notebook is already on, close all applications.
2. When the Windows desktop appears, insert the Driver Recovery CD in the optical drive. The Driver Recovery utility loads automatically.
3. When the Driver Recovery menu appears, follow the on-screen instructions to complete the recovery process.

To repair software applications using VAIO Support Agent

The Driver Recovery CD utility has an information vault that contains the original characteristics for the preinstalled software applications that are protected by VAIO Support Agent.

Using the System Recovery CD(s)

You can reinstall software titles that shipped with your computer if they are corrupted or erased. You may not need to recover the entire contents of your hard drive. If you experience a problem with your computer, reinstalling an individual device driver or software title may correct the problem. Use the Application Recovery CD(s) to reinstall individual applications or device drivers. See "Using the Application Recovery CD(s)" on page 46.

The System Recovery CD contains a backup copy of all the software originally installed on your hard disk drive. **It can be used only to recover the hard disk of the notebook you purchased.**

The System Recovery utility gives you Full Restore with Format; that is, it formats the hard disk drive and restores all the original software.

! **Full Restore with Format removes all the information on the hard disk drive. You will lose any software you have installed and any other files you have created since you started to use your computer. This means you will have to reinstall any applications that were not included with the computer when you purchased it. If you have any questions on using the System Recovery CD, contact Sony Customer Support.**

To use the System Recovery CD(s)

1. Insert the Sony System Recovery CD in the optical drive.
2. Shut down your computer as described in "Shutting Down Your Notebook" on page 27.
3. Wait four seconds and turn on your computer.
4. Click OK to signify you have read and accept the Microsoft End-User License Agreement.
5. When the System Recovery menu appears, follow the on-screen instructions to complete the recovery process.

If your notebook does not start from the Recovery CD

1. Press the power button and hold it for more than four seconds to turn off the notebook.
2. Turn on the notebook. When the Sony logo is displayed, press the F2 key. The BIOS setup menu screen appears.
3. Press the arrow keys to select the Exit menu.
4. Press the arrow keys to select "Get Default Values" and then press the Enter key. The message "Load default configuration now?" appears.
5. Check that "Yes" is selected, then press the Enter key.
6. Press the arrow keys to select "Exit" (Save Changes) and then press the Enter key. The message "Save configuration changes and exit now?" appears.
7. Check that "Yes" is selected, then press the Enter key. The notebook restarts from the Recovery CD.

✍ Your system may include one or two System Recovery CDs. If you have two System Recovery CDs, insert the first CD to run the System Recovery program. You are prompted to insert the second CD once the information from the first CD has been installed.

The recovery process takes from 30 to 60 minutes to complete.

After recovering your system using the SRCD, you may be prompted to insert your ARCD after restarting Windows. Insert the ARCD to automatically complete recovery of your system.

Recovering Microsoft® Word 2000

If you recover your operating system using the System Recovery CD, Microsoft Word 2000 will not be recovered. Use the supplied Word 2000 CD-ROM to recover this application.

Software Support Information

Adobe Acrobat® Reader, Adobe PhotoDeluxe® Home Edition

Web site	http://www.adobe.com/
phone	206-675-6126 (fee-based support)
e-mail	techdocs@adobe.com
hours	M-F, 6 AM-5 PM PT

America Online®

Web site	http://www.aol.com
phone	800-827-3338
hours	7 days a week, 24 hours a day

QuickTime™

Web site	http://www.apple.com
phone	512-674-8700*
hours	7 days a week, 6 AM-6 PM PT

* Support is for 90 days after the original date of purchase for most Apple products.

CompuServe® 2000

Web site	http://www.compuserve.com
phone	800-848-8990

Drag'n Drop CD

e-mail	contact@digion.com

EarthLink™ Network TotalAccess®

Web site	http://help.earthlink.net/techsupport/
phone	800-395-8410
e-mail	support@earthlink.net
hours	7 days a week, 24 hours a day

McAfee® VirusScan®

Web site	http://support.mcafee.com
phone	408-988-3832
e-mail	cybr@nai.com
hours	M-F 9AM-5PM Central Time

Netscape Communicator®

Web site	http://www.netscape.com/
phone	888-4SONYPC (888-476-6972)*
hours	7 days a week, 24 hours a day

PhotoPrinter™ 2000 Pro

Web site(s)	http://www.arcsoft.com http://www.photoisland.com
phone	510-440-9901
fax	510-440-1270
e-mail	techsupport@arcsoft.com
hours	M-F, 8:30 AM-5:30 PM PT

Prodigy Internet®

Web site	http://www.prodigy.com
phone	800-213-0992
hours	7 AM - 3 AM ET

Quicken® 2001 New User Edition

Web site	http://www.intuit.com/support
phone	900-555-4688
hours	7 days a week, 24 hours a day

RealPlayer®, RealProducer® G2

Web site	http://www.realnetworks.com/
phone	206-674-2681
fax	206-674-3586
e-mail	http://service.real.com (online form)
hours	M-F, 8 AM-5 PM PT

Sony Applications

Web site	http://www. sony.com/pcsupport
phone	888-4SONYPC (888-476-6972)*
hours	7 days a week, 24 hours a day

Windows® 2000 Operating System, Internet Explorer, Word 2000

Web site	http://www.microsoft.com/support/
phone	888-4SONYPC (888-476-6972)*
hours	7 days a week, 24 hours a day

WinDVD® 2000

Web site	http://www.intervideo.com/jsp/Support.jsp
e-mail	support@intervideo.com

* Support from 1-888-4SONYPC is free of charge for 90 days after the original date of purchase.

Sony Service Center

For the Sony Service Center nearest you, call 1-888-4SONYPC (1-888-476-6972) or find Sony Customer Service on the web at http://www.sony.com/pcsupport.

Troubleshooting

This section describes how to solve common problems you may encounter when using your notebook. Since many problems have simple solutions, try these suggestions before you contact Sony PC Support (http://www.sony.com/pcsupport).

Troubleshooting Your Notebook

My notebook does not start.

- Check that the notebook is plugged into a power source and that it is turned on. Check that the power indicator on the front panel of the notebook indicates that the power is on.
- Check that the battery packs are inserted properly and that they are charged.
- Make sure there is no diskette in the floppy disk drive.
- Confirm that the power cord and all cables are connected firmly, as described in "Connecting a Power Source" on page 20.
- If you plugged the notebook into a power strip or UPS, make sure the power strip or UPS is turned on and working.
- If you are using an external display, check that it is plugged in to a power source and turned on. Check that the brightness and contrast controls are adjusted correctly. See the manual that came with your display for details.
- Moisture condensation may have occurred. Do not use the notebook for at least one hour and then turn on the notebook.
- Take the battery pack off the notebook, unplug the power cord and plug it again, then turn on the power.
- If you shut down your notebook using a series of program errors, the power control button may not function. Push the Reset switch on the back of your notebook with a thin, pointed object to start your computer. If your notebook

still does not start, remove the AC adapter and battery pack and wait one minute, then reattach them and press the power button.

When starting my notebook for the first time, the VAIO InitManager dialog box appears. (Windows Me only)

Select "OK" to begin initial setup. If you do not execute the initial setup, you cannot use part of VAIO original hardware functions such as Power Management tool, scroll function of touchpad, and keyboard shortcut key function combined with the Fn key.

My notebook starts, but my system doesn't start properly.

When the internal backup battery is low on power, your system may not start properly, and the message "Press <F1> to resume, <F2> to setup" may appear at the bottom of the screen. In such a case, proceed as follows:

1. Press F2. The BIOS Setup menu appears.
2. Set the date (month/day/year). Press Enter.
3. Press ↓ to select System Time, then set the time (hour: minute: second). Press Enter.
4. Press → to select Exit, then press ↓ to select Get Default Values. The message "Load default configuration now?" appears.
5. Select Yes and press Enter.
6. Select Exit (Save Changes), then press Enter. The message "Save Configuration changes and exit now?" appears.
7. Select Yes, then press Enter. The notebook restarts.

My notebook starts, but the message "Operating system not found" appears and Windows does not start.

- Make sure there is no diskette in the floppy disk drive (non-bootable).
- If a non-bootable diskette is in the drive, proceed as follows:
  1. Turn off the notebook, then remove the diskette.
  2. Restart the notebook and confirm that Windows starts properly.

- If Windows still does not start, follow the steps below to initialize the BIOS:

  1 Remove any diskette from the floppy disk drive.

  2 Turn off the notebook.

  3 Remove any peripheral devices connected to the notebook.

  4 Turn on the notebook.

  5 Press the F2 key when the Sony logo appears, to access the BIOS setup menu.

  6 Press the directional arrow keys to select the Exit menu.

  7 Press the arrow keys to select "Get Default Values" then press Enter. The message "Load default configuration now?" appears.

  8 Select Yes, then press Enter.

  9 Use the directional arrow keys to select "Exit" (Save Changes), then press Enter. The message "Save configuration changes and exit now?" appears.

  10 Select Yes, then press Enter. The notebook restarts.

✍ If your notebook continues to display the message "Operating system not found," and Windows does not start, contact Sony Customer Support.

My notebook stops responding or does not shut down.

It is best to use the Shut Down command on the Windows Start menu to shut down your notebook. Using other methods, including those listed below, may result in loss of unsaved data.

- Click the Start button on the Windows taskbar, then click Shut Down, then click Restart.
- (Windows Me) If the preceding step does not work, press Ctrl+Alt+Delete twice to restart the notebook.
  (Windows 2000) If the preceding step does not work, press Ctrl+Alt+Delete and click Shut Down on the Windows Security screen to restart the notebook.
- If the preceding step does not work, press and hold the power button for at least four seconds to turn off the power.
- If the preceding step does not work, unplug the notebook from the AC adapter and remove the battery pack from your notebook.

- (Windows Me) If your notebook stops responding while playing a CD or DVD, stop the CD/DVD and press Ctrl+Alt+Delete twice to restart the notebook.
  (Windows 2000) If your notebook stops responding while playing a CD or DVD, press Ctrl+Alt+Delete and click Shut Down on the Windows Security screen to restart your notebook.

✍ Pressing Ctrl+Alt+Delete or turning off the notebook with the power switch may result in data loss in files that are currently open.

My notebook does not enter the power saving mode I selected. (Windows Me™ only)

To enable your notebook to enter the power saving mode you select, proceed as follows:

1. Click Start, point to Program, point to Accessories, point to System Tools, then click System Information. The Help and Support window appears.
2. Click System Configuration Utility under the Tools menu.
3. Click the Advanced button on the General tab, and Confirm the following information:
   - The message “Standby function is enabled” is displayed.
     If the message reads “Standby function is disabled,” click the Enable button.
   - The message “Hibernate feature is enabled” is displayed.
     If the message reads “Hibernate feature is disabled”, click the Enable button.
4. Click OK and restart your notebook.

I cannot see the “Removable Disk (S:)” in “My Computer” on the desktop. (Windows Me™ only)

1. Click Start, point to Settings, and select Control Panel to open the Control Panel window.
2. Double-click System to access the System Properties window.

   If you cannot find System, click Display Control Panel options in the Control Panel window.

3 Select the Device Manager tab.

4 Click [Refresh].

My notebook is unstable.

Your notebook's operating system may become unstable if a lower power state, such as Hibernate, is initiated then changed before the notebook completely enters the lower power state. To restore the notebook to its normal operating stability:

1 Close all open applications.

2 Press and hold the power button for four seconds or longer to shut down the notebook.

The sound of my notebook's fan is too loud.

Use the PowerPanel utility to change the Thermal Control Strategy setting to Quiet. This setting slows down the CPU speed. See PowerPanel Help for more information.

Troubleshooting the Docking Station

I cannot operate the optical drive in the docking station, when the docking station is connected to the notebook.

Follow these steps to set the i.LINK* network switch.

1. Disconnect your notebook from the docking station.
2. Disconnect the AC adapter and all cables from your docking station.
3. Set the i.LINK network switch on the bottom of the docking station to the unmarked side, with a thin pen tip.
4. Connect the docking station to the notebook.
5. Turn on your notebook.

✍ Do not set the i.LINK network switch when the notebook is on. This causes the notebook to malfunction.

Set the i.LINK network switch after removing all cables connected to the docking station.

I cannot operate the optical drive in the docking station, when the docking station is connected to the notebook and the notebook is connected to another computer via i.LINK.

Set the i.LINK network switch at the bottom of the docking station to the marked ● side. See "If Your Notebook is Connected to the Optional Docking Station" in the online *VAIO® Notebook User Guide* for details.

* i.LINK is a trademark of Sony used only to designate that a product contains an IEEE 1394 connection. The i.LINK connection may vary, depending on the software applications, operating system, and i.LINK-compatible devices. All products with an i.LINK connection may not communicate with each other. Please refer to the documentation that came with your i.LINK-compatible device for information on operating conditions and proper connection. Before connecting i.LINK-compatible PC peripherals to your system, such as a CD-RW or hard disk drive, confirm their operating system compatibility and required operating conditions.

An error message appears while disconnecting the docking station, even after following the correct procedure for disconnecting the docking station.

Close the software in use, disconnect other devices being used, then try to disconnect the docking station from the notebook.

I cannot remove the disc.

You cannot remove the disc when the computer is in power saving mode. Return to normal mode, then press the Eject button.

The disc tray does not eject even after I press the Eject button.

Open the tray by inserting a sharp, pointed object in the manual eject hole.

Troubleshooting the LCD Screen

My LCD screen is blank.

- Verify that the notebook is plugged into a power source and that it is turned on.
- Verify that the power indicator on the notebook is on.
- Verify that the battery pack(s) is inserted properly and is charged.
- The notebook may be in LCD (Video) Standby mode. Press any key to activate the screen.
- The display mode may be set to external display mode. Press and hold the Fn key while pressing F7 several times.

My LCD screen continues to show the previous screen.

Press the Windows key and D key twice to refresh the screen.

The image on my connected external display is not centered or sized properly.

Use the controls on your external display to adjust the image. See the manual that came with your display for more information.

I want to change the video resolution of my display.

1. Click Start, point to Settings, point to Control Panel, then double-click the Display icon. The Display Properties dialog box appears.
2. Click on the Settings tab.
3. Move the Screen Area slider to change your video resolution.

Troubleshooting the Mouse and Touchpad

My mouse does not work.

- If you are using an external mouse, verify that the mouse is plugged into the mouse connector. See "Connecting a Universal Serial Bus (USB) Device" in the online *VAIO® Notebook User Guide* for details.
- If you are using an optional Sony USB mouse PCGA-UMS1 series, verify that the mouse is plugged into the USB connector.

My touchpad does not work properly.

- You may have disabled the touchpad without connecting a mouse to the notebook. To enable the touchpad:
  1. Click Start > Programs > Sony Notebook Setup.
  2. Select the Touchpad tab.
  3. Click Use touchpad and click OK.
- If your touchpad is interpreting a single tap as a double-click, adjust the button assignments as follows:
  1. Click Start, point to Control Panel, then double-click on the Mouse icon. The Mouse Properties dialog box appears.
  2. Change the button assignments in the Mouse Properties dialog box. (One of the buttons is assigned to the double-click action.)

The pointer does not move (while using the Touchpad or Mouse).

Click the Start button on the Windows taskbar, select Shut Down to display the Shut Down Windows dialog box, then press Enter.

- (Windows Me) If you cannot turn off your notebook as described in the step above, press Ctrl+Alt+Delete twice to restart the notebook.
  (Windows 2000) If you cannot turn off your notebook as described in the step above, press Ctrl+Alt+Delete and click Shut Down on the Windows Security screen to restart the notebook.
- If you cannot restart your notebook as described in the step above, press and hold the power button for more than four seconds to turn off the notebook.
- If the pointer does not move while playing a disc, press Ctrl+Alt+Delete to stop playback and restart the notebook.

Troubleshooting Drives, PC Cards, and Peripheral Devices

My floppy disk drive can not write to a diskette.

- If the diskette is write-protected, disable the write-protect feature or use a diskette that is not write-protected.
- Verify that the diskette is properly inserted into the floppy disk drive.

My optical drive is not playing my CD or DVD properly.

- Make sure the label of the disc is facing up.
- If the disc requires software, make sure the software is installed according to the manufacturer's instructions.
- A dirty or damaged disc may cause the notebook to stop responding while it tries to read the disc. If necessary, restart the notebook, remove the disc, and check disc for dirt or damage.
- If you see video but can not hear audio, check all of the following:
  - Check that your optical drive does not have the mute setting enabled.
  - Check the volume setting in the audio mixer.
  - If you are using external speakers, check the volume settings, and then check the connections between your external speakers and the notebook.
  - Click Start, point to Settings, point to Control panel, then double-click System. The System Properties dialog box appears.
  - Click the Device Manager tab.
  - Verify that the correct drivers are installed properly.

- Do not use adhesive labels to identify the CD. The label may come off while the disc is in use in the optical drive and cause the drive to malfunction.
- If a region code warning appears when you try to use your optical drive, it may be that the DVD you are trying to play is incompatible with the optical drive. Verify the region code listing on the DVD packaging.
- Moisture condensation may have occurred. Leave the notebook idle for at least one hour with the notebook turned on.

The DVD videos cannot be played properly. (Windows Me™ only)

Follow these steps, to correct this condition.

1. Click Start, point to Settings, and click Control Panel to access the Control Panel window.
2. Double-click Display to access the Display Properties dialog box.
3. Click the Setting tab.
4. Click the Advanced button.
5. Click the Adapter tab, and set RefreshRate to 60 Hz.
6. Click OK.

My optical drive tray does not open.

- Make sure the notebook is turned on.
- Press the Eject button on the optical drive.
- If the Eject button does not work, open the tray by inserting a thin pen tip in the hole to the right of the Eject button.

I cannot use digital video (DV) devices. The message "DV equipment seems to be disconnected or turned off" appears.

- Verify that the DV device is turned on and that the cables are properly connected.
- If you are using multiple i.LINK devices, the combination of the connected devices may cause unstable operation. In this case, proceed as follows:

  1 Turn off your notebook and all connected devices.

  2 Disconnect the devices that are not in use.

3 Ensure that all other devises are properly connected.

4 Restart your notebook.

My PC card does not work.

- Make sure the PC card is compatible with Microsoft® Windows®.
- Use the Sony Notebook Setup utility to disable devices you are not currently using.

Troubleshooting the Software

My software program stops responding or crashes.

Contact the software publisher or designated provider for technical support. See "Software Support Information" on page 50.

When I click an application icon, the message "You must insert the application CD into your optical drive" appears and the software does not start.

- Some titles require specific files that are located on the application CD. Insert the disc and try starting the program again.
- Make sure you place the CD in the tray with the label side facing up.

I hear background "noise" while using Windows Media Player to play my music CDs.

Sony suggests using the preinstalled Media Bar software to play audio CDs.

SmartCapture software does not start. (Windows Me™ only)

Follow these steps to correct this condition.

1 Click Start, point to Settings, and click Control Panel to access the Control Panel window.

2 Double-click Display to access the Display Properties dialog box.

3 Click the Setting tab.

4 Click the Advanced button.

5 Click the Adapter tab, and set RefreshRate to 60 Hz.

6 6. Click OK.

The application cannot find a file while a PC card is inserted. (Windows Me™ only)

Some PC cards when inserted in a notebook that is connected to the docking station may change the drive letters of the disk drives in the docking station. If this occurs, an application you are using may not be able to find files.

To correct this condition perform one of the following steps:

- Remove the PC card and restart your notebook, and do not insert the PC card while using that application.
- Change the drive letters of the disk drives of the docking station or of the PC card. Refer to the Windows help files or the manuals of the application to change the drive letters.

Troubleshooting the Modem

My modem does not work.

- Check that the phone line is plugged into the line jack. See "Using a Phone Line" in the online *VAIO® Notebook User Guide* for details.
- Check that the phone line is working by plugging the line in an ordinary phone and listening for a dial tone.
- Verify that the phone number the program is dialing is correct.
- Verify that the software you are using is compatible with the notebook's modem. (All preinstalled Sony programs are compatible.)

My modem connection is slow.

Your notebook is equipped with a 56K/V.90 compatible modem. Many factors may influence modem connection speed, including telephone line noise or compatibility with telephone equipment (such as fax machines or other modems). If you think your modem is not connecting properly to other PC-based modems, fax machines, or your Internet Service Provider, proceed as follows:

- Have your phone company verify that your phone line is free from any line noise.
- If your problem is fax-related, check that there are no problems with the fax machine you are calling and that it is compatible with fax modems.

- If you are having a problem connecting with your Internet Service Provider, check that the ISP is not experiencing technical problems.
- If you have a second phone line available, try connecting the modem to that line.

Troubleshooting Audio

My speakers have no sound.

- If the built-in speakers are turned off, press Fn+F3 or use the Jog Dial control to turn on the speakers.
- If the speaker volume is turned to the minimum, press Fn+F4, then press ↓ or ➜ to increase the volume, or you can use the Jog Dial control to control the volume.
- If nothing is displayed when you press Fn+F3 or Fn+F4, proceed as follows:

  1 Click Start, point to Settings, point to Control panel, then double-click System. The System Properties dialog box appears.

  2 Click the Device Manager tab.

  3 Set the sound device to enable.

- If your notebook is powered by batteries, verify that the battery packs are inserted properly and that they are charged.
- If you are using an application that has its own volume control, verify that the volume is turned up.
- Check the volume controls in Windows®.
- If you connect external speakers:
  - Verify that the speakers are properly connected and the volume is turned up.
  - If the speakers have a mute button, make sure the button is off.
  - If the speakers are powered by batteries, verify that the batteries are inserted properly and that they are charged.
- If you have connected an audio cable to the Headphone connector, disconnect the cable.

My microphone does not work.

If you are using an external microphone, verify that the microphone is plugged into the Microphone connector. See "Connecting an External Microphone" in the online *VAIO® Notebook User Guide* for details.

Troubleshooting the Printer

I cannot print.

- The default setting for the printer port mode is correct for most printers. If you cannot print, try changing the printer port mode. In the Sony Notebook Setup screen, select the Printer tab. If the printer port mode is set to ECP, change it to bi-directional; if the printer port mode is set to bi-directional, change it to ECP. See "Displaying the Sony Notebook Setup Screen" in the online *VAIO® Notebook User Guide* for details.
- Your connected printer may not function after the notebook resumes from a power saving mode. If this occurs, proceed as follows to reset the printer connection:

  Windows Me™ Only

  1 Right-click My Computer icon on the desktop, then select Properties.

  2 Click the Device Manager tab.

  3 Select Refresh, then click OK. The printer should function properly.

  Windows® 2000 Only

  1 Click My Computer icon on the desktop, then click on the Control Panel folder.

  2 Click on the Printers folder.

  3 Right-click on the icon of the printer that is malfunctioning, then select Properties to access the Properties window.

  4 Click OK to close the Properties window. The printer should function properly.

Getting Help

This section provides the many support options that are available for your VAIO® Notebook.

Sony provides several support options for your VAIO Notebook. When you have questions about your notebook and the preinstalled software, check these sources for answers, in the sequence listed below.

Support Options

If you have questions about your notebook or the preinstalled software, refer to the following sources for answers in the sequence listed below.

1	**VAIO® Notebook User Guide** This User Guide contains information on product specifications and on how to get the most from your notebook, find help, customize your notebook, and solve common problems. To access this User Guide, click Start on the Windows® taskbar, select Help Center and VAIO Documentation.
2	**Manuals and online help files that may accompany your preinstalled software** Most of the manuals for preinstalled software are located on your hard disk drive as online help files. You can access the online help files from the Help menu in the specific application. A printed manual is available for some applications.
3	**VAIO Support Agent** VAIO Support Agent can be accessed from the Windows desktop. Using advanced diagnostic technology, Sony's VAIO Support Agent runs scheduled protections of your applications, network settings, and other important software settings. When your software is protected, you can use VAIO Support Agent to repair software problems by restoring your software to any of the previously protected states.

4 Sony PC Support

This service provides instant access to information on commonly encountered problems. Enter a description of your problem and the Knowledge Database searches for the corresponding solutions online. You can access Sony PC Support at:
http://www.sony.com/pcsupport

5 Sony Fax-on-Demand

This service, which requires a fax machine or your fax software, provides answers to commonly asked questions. You can use this automated service to request a list of available topics, then select the topics that you want to receive. To contact the Sony fax-on-demand service, call:
1-888-4SONYPC (1-888-476-6972)

6 Sony Customer Support

Software support is available free of charge for 90 days after the original date of purchase. You can call and speak with a Sony Customer Support Representative without using your computer by calling:
1-888-4SONYPC (1-888-476-6972)

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PCG-R505TL/R505TLK

SERVICE MANUAL

US Model
Canadian Model

PCG-R505TL/R505TLK is almost same as PCG-R505TE/R505TEK.
This manual contains only the points which differ from PCG-R505TE.
Use the following manual along in case of repair and inspection.

PCG-R505TE/R505TEK/R505TS/R505TSK SERVICE MANUAL 9-872-220-11

Confidential

DIFFERENT PARTS LIST

Page*	PCG-R505TE/R505TEK			PCG-R505TL/R505TLK		
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5-2	34	A-8049-521-A	(R505TEK/TE)... MBX-48 (750SS-H) (S)	34	A-8049-457-A	MBX-48 (C650-T) (S)
5-4	119	4-654-007-21	(R505TEK)...LABEL (ID (U))	119	4-654-007-61	(R505TLK)...LABEL (ID (U))
	119	4-654-007-31	(R505TE)...LABEL (ID (U))	119	4-654-007-51	(R505TL)...LABEL (ID (U))

* “Page” means a page of PCG-R505TE/R505TEK/R505TS/R505TSK SERVICE MANUAL.

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Notebook Computer

SONY®

English
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Published by MNC IT Planning & Control Dept. [SNT]

9-872-242-11

Sony Corporation

SONY

VAIO® R505 SuperSlim Pro™ Notebook Quick Start

PCG-R505TL, PCG-R505TLK

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Notice to Users

Sony Electronics Inc. provides no warranty with regard to this manual, the software, or other information contained herein and information contained herein and hereby expressly disclaims an implied warranties of merchantability or fitness for any particular purpose with regard to this manual, the software, or such other information. In no event shall Sony Electronics inc. be liable for an incidental, consequential, or special damages, whether based on tort, contract, or otherwise, arising out of or in connection with this manual, the software, or other information contained herein or the use thereof.

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i.LINK is a trademark of Sony used only to designate that a product contains an IEEE 1394 connection. The i.LINK connection may vary, depending on the software applications, operating system, and i.LINK-compatible devices. All products with an i.LINK connection may not communicate with each other.

Please refer to the documentation that came with your i.LINK-compatible device for information on operating conditions and proper connection. Before connecting i.LINK-compatible PC peripherals to your system, such as a CD-RW or hard disk drive, confirm their operating system compatibility and required operating conditions.

All other trademarks are trademarks of their respective owners.

Owner's Record

The model number and serial number are located on the bottom of your Sony VAIO® R505 SuperSlim Pro™ Notebook. Record the serial number in the space provided here. Refer to the model and serial number when you call your Sony Service Center.

Model Number: PCG-613A, PCG-6132

Serial Number:_____

Safety Information

WARNING

- ❑ To prevent fire or shock hazard, do not expose your notebook to rain or moisture.
- ❑ To avoid electrical shock, do not open the cabinet. Refer servicing to qualified personnel only.
- ❑ Never install modem or telephone wiring during a lightning storm.
- ❑ Never install telephone jacks in wet locations unless the jack is specifically designed for wet locations.
- ❑ Never touch uninsulated telephone wire or terminals unless the telephone line has been disconnected at the network interface.
- ❑ Use caution when installing or modifying telephone lines.
- ❑ Avoid using the modem during an electrical storm.
- ❑ Do not use the modem or a telephone to report a gas leak in the vicinity of the leak.
- ❑ A socket outlet should be as close as possible to the unit and easily accessible.

Caution: To reduce the risk of fire, use only No. 26 AWG or larger telecommunication line cord.

Caution : The use of optical instruments with this product will increase eye hazard. As the laser beam used in this product is harmful to the eyes, do not attempt to disassemble the cabinet. Refer servicing to qualified personnel only.

For CD-RW/DVD-ROM drive, DVD-ROM drive: Danger - Visible and invisible laser radiation when open. Avoid direct exposure to beam.

AVERTISSEMENT

- Pour prévenir tout risque d'incendie ou d'électrocution, garder cet appareil à l'abri de la pluie et de l'humidité.
- Pour prévenir tout risque d'électrocution, ne pas ouvrir le châssis de cet appareil et ne confier son entretien qu'à une personne qualifiée.
- Ne jamais effectuer l'installation de fil modem ou téléphone durant un orage électrique.
- Ne jamais effectuer l'installation d'une prise téléphonique dans un endroit mouillé à moins que la prise soit conçue à cet effet.
- Ne jamais toucher un fil téléphonique à découvert ou un terminal à moins que la ligne téléphonique n'ait été débranché de l'interface réseau.
- Soyez très prudent lorsque vous installez ou modifiez les lignes téléphoniques.
- Évitez d'utiliser le modem durant un orage électrique.
- N'utilisez pas le modem ni le téléphone pour prévenir d'une fuite de gas si vous êtes près de la fuite.
- L'appareil doit être le plus près possible d'une prise murale pour en faciliter l'accès.

Attention : Afin de réduire les risques d'incendie, n'utilisez qu'un cordon de communication N0. 26 AWG ou plus gros.

Avertissement - L'utilisation d'instruments optiques avec ce produit augmente les risques pour les yeux. Puisque le faisceau laser utilisé dans ce produit est dommageable pour les yeux, ne tentez pas de désassembler le boîtier. Adressez-vous à un agent de service qualifié.

Pour les lecteur CD-RW/DVD-ROM, lecteur DVD-ROM: Danger : Radiation laser visible et invisible si ouvert. Évitez l'exposition directe au faisceau.

If you have any questions about this product, you can reach the Sony Customer Information Service Center by phone at 1-888-4SONYPC or on the web at http://www.sony.com/pcsupport. If you prefer to write the Sony Customer Information Service Center, our mailing address is 12451 Gateway Blvd., Ft. Myers, FL 33913 and our email address is SOS@mail.sel.sony.com.

Regulatory Information

Declaration of Conformity

Trade Name:	SONY
Model No.:	PCG-613A, PCG-6132
Responsible Party:	Sony Electronics Inc.
Address:	680 Kinderkamack Rd. Oradell, NJ 07649
Telephone:	201-930-6972

This phone number is for FCC-related matters only.

This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and

(2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- ❑ Reorient or relocate the receiving antenna.
- ❑ Increase the separation between the equipment and the receiver.
- ❑ Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- ❑ Consult the dealer or an experienced radio/TV technician for help.

You are cautioned that any changes or modifications not expressly approved in this manual could void your authority to operate this equipment.

Only peripherals (computer input/output devices, terminals, printers, etc.) that comply with FCC Class B limits may be attached to this computer product. Operation with noncompliant peripherals is likely to result in interference to radio and television reception.

All cables used to connect peripherals must be shielded and grounded. Operation with cables, connected to peripherals, that are not shielded and grounded, may result in interference to radio and television reception.

FCC Part 68

This equipment complies with Part 68 of the FCC rules. On the bottom of this equipment is a label that contains, among other information, the FCC Ringer Equivalence Number (REN) for this equipment. If requested, this information must be provided to the telephone company.

This modem uses the USOC RJ-11 telephone jack.

The REN is used to determine the quantity of devices which may be connected to the telephone line. Excessive RENs on the telephone line may result in the devices not ringing in response to an incoming call. In

most, but not all areas, the sum of the RENs should not exceed five (5.0). To be certain of the number of devices that may be connected to the line, as determined by the total RENs, contact the telephone company to determine the maximum REN for the calling area.

If the terminal equipment causes harm to the telephone network, the telephone company will notify you in advance that temporary discontinuance of service may be required. But if advance notice is not practical, the telephone company will notify the customer as soon as possible. Also, you will be advised of your right to file a complaint with the FCC if you believe it is necessary.

The telephone company may make changes in its facilities, equipment, operations or procedures that could affect the operations of the equipment. If this happens, the telephone company will provide advance notice in order for you to make the necessary modifications in order to maintain uninterrupted service.

If trouble is experienced with this equipment, you can reach the Sony Customer Information Service Center by phone at 1-888-4SONYPC or on the web at http://www.sony.com/pcsupport. If you prefer to write the Sony Customer Information Service Center, our mailing address is 12451 Gateway Blvd., Ft. Myers, FL 33913 and our email address is SOS@mail.sel.sony.com.

Repair of this equipment should be made only by a Sony Service Center or Sony authorized agent. For the Sony Service Center nearest you, call 1-888-4SONYPC (1-888-476-6972).

This equipment cannot be used on public coin service provided by the telephone company. Connection to Party Line Service is subject to state and possible provincial tariffs. (Contact the state or provincial utility service commission, public service commission, or corporation commission for information.)

Telephone Consumer Protection Act of 1991 (United States)

The Telephone Consumer Protection Act of 1991 makes it unlawful for any person to use a computer or other electronic device to send any message via a telephone facsimile machine unless such message clearly contains, in a margin at the top or bottom of each transmitted page or on the first page of the transmission, the date and time it is sent and an identification of the business, other entity, or individual sending the message, and the telephone number of the sending machine or such business, other entity, or individual.

In order to program this information into your facsimile machine, see your fax software documentation.

Telephone Consumer Guidelines (Canada)

Please refer to your telephone directory under ‘Privacy Issues’ and/or ‘Terms of Service.’ For more detailed information, please contact:

CRTC
Terrasses de la Chaudiére, Tour centrale
1 promenade du Portage, 5 étage Hull PQ K1A 0N2.

This Class B digital apparatus complies with Canadian ICES-003.

Cet àppareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

Disposal of Lithium-Ion Battery

You can return your unwanted lithium-ion batteries to your nearest Sony Service Center or Factory Service Center.

✍ In some areas the disposal of lithium-ion batteries in household or business trash may be prohibited.

For the Sony Service Center nearest you, call 1-888-476-6972 in the United States or 1-800-961-7669 in Canada. Also use Sony Customer Service on the web at http://www.sony.com/pcsupport.

⚠ **Do not handle damaged or leaking lithium-ion batteries.**

Ne pas manipuler les batteries au lithium-ion qui fuient ou sont endommagées.

⚠ **Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Discard used batteries according to the manufacturer's instructions.**

Une batterie non conforme présente un danger d'explosion. La remplacer seulement par une batterie identique ou de type équivalent recommandé par le fabricant. Évacuer les batteries usées selon les directives du fabricant.

⚠ **The battery pack used in this device may present a fire or chemical burn hazard if mistreated. Do not disassemble, heat above 212°F (100°C) or incinerate. Dispose of used battery promptly.**
Keep away from children.

La manutention incorrecte du module de batterie de cet appareil présente un risque d'incendie ou de brûlures chimiques. Ne pas démonter, incinérer ou exposer à une température de plus de 100°C. Évacuer promptement la batterie usée. Garder hors de portée des enfants.

Industry Canada Notice

NOTICE: The Industry Canada label identifies certified equipment. This certification means that the equipment meets certain telecommunications network protective, operational and safety requirements as prescribed in the appropriate Terminal Equipment Technical Requirements document(s). The Department does not guarantee the equipment will operate to the user's satisfaction.

Before installing this equipment, users should ensure that it is permissible to be connected to the facilities of the local telecommunications company. The equipment must also be installed using an acceptable method of connection.

The customer should be aware that compliance with the above conditions may not prevent degradation of service in some situations.

Repairs to certified equipment should be coordinated by a representative designated by the supplier. Equipment malfunctions or any repairs or alterations made by the user to this equipment may give the telecommunications company cause to request that the user disconnect the equipment.

Users should ensure for their own protection that the electrical ground connections of the power utility, telephone lines and internal metallic water pipe system, if present, are connected together. This precaution may be particularly important in rural areas.

CAUTION: Users should not attempt to make such connections themselves, but should contact the appropriate electrical inspection authority, or electrician, as appropriate.

NOTICE: The Ringer Equivalence Number (REN) assigned to each terminal device provides an indication of the maximum number of terminals allowed to be connected to a telephone interface. The termination on an interface may consist of any combination of devices subject only to the requirement that the sum of the Ringer Equivalence Numbers of all the devices does not exceed 5. The Ringer Equivalence Number for this equipment is 0.2.

Avis de L'Industrie Canada

AVIS: L'étiquette d'Industrie Canada identifie le matériel homologué.

Cette étiquette certifie que le matériel est conforme aux normes de protection, d'exploitation et de sécurité des réseaux de télécommunications, comme le prescrivent les documents concernant les exigences techniques relatives au matériel terminal. Le Ministère n'assure toutefois pas que le matériel fonctionnera à la satisfaction de l'utilisateur.

Avant d'installer ce matériel, l'utilisateur doit s'assurer qu'il est permis de le raccorder aux installations de l'entreprise locale de télécommunication. Le matériel doit également être installé en suivant une méthode acceptée de raccordement. L'abonné ne doit pas oublier qu'il est possible que la conformité aux conditions énoncées ci-dessus n'empêche pas la dégradation du service dans certaines situations.

Les réparations de matériel homologué doivent être coordonnées par un représentant désigné par le fournisseur. L'entreprise de télécommunications peut demander à l'utilisateur de débrancher un appareil à la suite de réparations ou de modifications effectuées par l'utilisateur ou à cause de mauvais fonctionnement.

Pour sa propre protection, l'utilisateur doit s'assurer que tous les fils de mise à la terre de la source d'énergie électrique, des lignes téléphoniques et des canalisations d'eau métalliques, s'il y en a, sont raccordés ensemble. Cette précaution est particulièrement importante dans les régions rurales.

Avertissement: L'utilisateur ne doit pas tenter de faire ces raccordements lui-même; il doit avoir recours à un service d'inspection des installations électriques, ou à un électricien, selon le cas.

AVIS: L'indice d'équivalence de la sonnerie (IES) assigné à chaque dispositif terminal indique le nombre maximal de terminaux qui peuvent être raccordés à une interface.

La terminaison d'une interface téléphonique peut consister en une combination de quelques dispositifs, à la seule condition que la somme d'indices d'équivalence de la sonnerie de tous les dispositifs n'excède pas 5.

L'indice d'équivalence de la sonnerie de ce matériel est de 0.2.

Welcome

Congratulations on your purchase of the Sony VAIO® notebook. Sony has combined leading-edge technology in audio, video, computing, and communications to provide you with State-of-the-art personal computing.

Features

Here are some of the features your notebook offers:

✍ For complete specifications of your VAIO Notebook, see the VAIO® PCG-R505TL, PCG-R505TLK Notebook Specifications.

- **Exceptional performance —** Your notebook includes a Mobile Intel® Celeron™ processor 650 MHz* and a V.90-compatible K56flex modem.†
- **Portability —** Rechargeable battery pack provides hours of use without AC power, even while you use the optional docking station.
- **Sony audio and video quality —** High-quality MPEG2 video, which supports full-screen display (12.1-inch Active Matrix LCD screen) and enables you to take advantage of today's advanced multimedia applications, games, and entertainment software.
- **Microsoft Windows® Operating System —** Your system includes Microsoft® Windows® Millennium Edition or Microsoft® Windows® 2000 Professional.
- **Communications —** Access popular online services, send e-mail, browse the Internet, and use fax features.

* MHz denotes microprocessor internal clock speed; other factors may affect application performance.

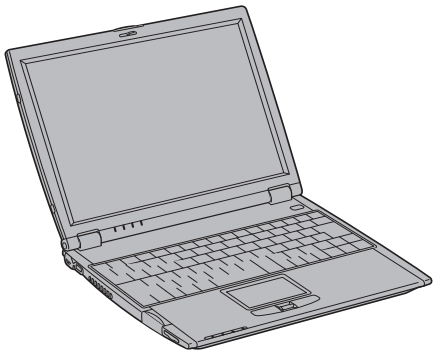
† Actual upload and download speeds may vary due to line conditions, ISP support, and government regulations.

Unpacking Your Notebook

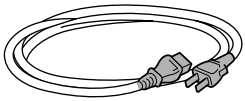
Remove the following hardware, documentation, and CDs from the box:

Hardware

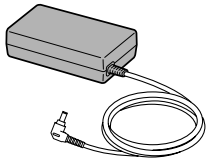
Main Unit



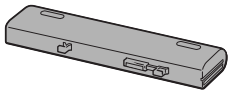
Power Cord



AC Adapter



Rechargeable Battery Pack



Documents

- ***VAIO® Quick Start —*** Contains details on unpacking and setting up your notebook, supplementary updates, and software information.
- ***Microsoft® Windows® Millennium Edition Getting Started or Microsoft® Windows® 2000 Professional Getting Started —*** Explains how to use the basic features of the latest Windows operating system.
- ***VAIO® PCG-R505TL, PCG-R505TLK Notebook Specifications —*** Details the hardware specifications for your notebook and the optional docking station.

Software CDs

- **Microsoft® Word 2000 —** Allows you to reinstall Microsoft Word 2000 to the Sony computer you purchased.

Recovery CDs

- **Application Recovery CD(s) —** Allows you to reinstall individual applications or device drivers if they are corrupted or erased.
- **System Recovery CD(s) —** Allows you to restore the software titles that shipped with your computer if they become corrupted or are erased. It can be used only to restore the hard disk of the Sony computer you purchased.
- **Driver Recovery CD(s) —** Allows you to reinstall individual device drivers and repair software applications if they become corrupted or are erased.

✍ To use these recovery CDs, you need to purchase either the optional PCGA-DSM5 CD-RW/DVD Docking Station or the optional PCGA-DSD5 DVD Docking Station.

Other

- Packet containing special product offers

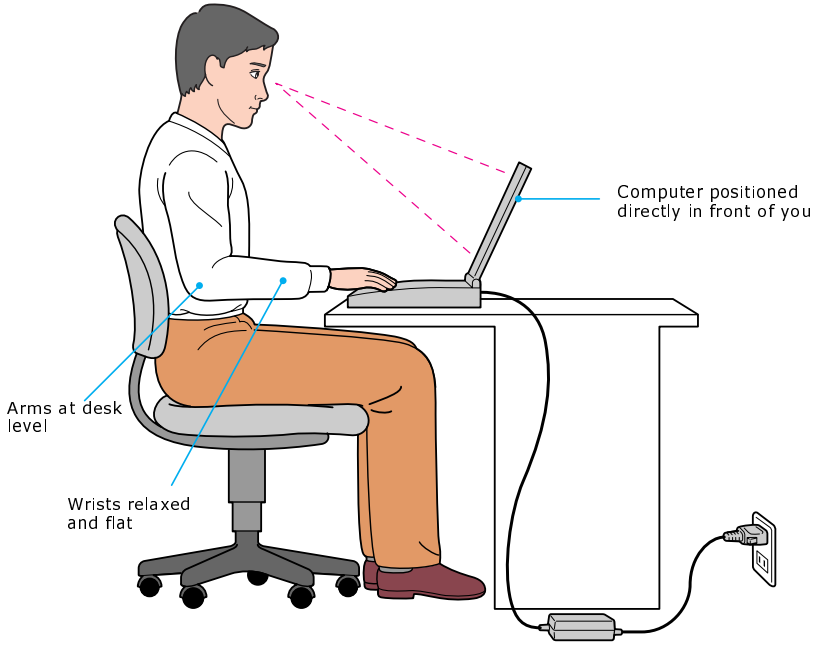
Notes on Use

You will be using your notebook as a portable device in a variety of environments. Whenever possible, you should comply with ergonomic guidelines in both stationary and portable environments.

Ergonomic Guidelines

- **Position of your computer —** Place the computer directly in front of you as you work. Keep your forearms horizontal, with your wrists in a neutral, comfortable position while using the keyboard, touchpad, or external mouse. Let your upper arms hang naturally at your sides. Take breaks during sessions with your computer. Excessive use of the computer may strain muscles or tendons.
- **Furniture and posture —** Sit in a chair with good back support and armrests. Adjust the level of the chair so your feet are flat on the floor. A footrest may make you more comfortable. Sit in a relaxed, upright posture and avoid slouching forward or leaning far backward.
- **Viewing angle of the computer's display —** Use the display's tilting feature to find the best position. You can reduce eye strain and muscle fatigue by adjusting the tilt of the display to the proper position. Adjust the brightness setting of the display also.
- **Lighting —** Choose a location where windows and lights do not create glare and reflection on the display. Use indirect lighting to avoid bright spots on the display. You can also purchase accessories for your display that help reduce glare. Proper lighting adds to your comfort and work effectiveness.
- **Placement of an external display —** When using an external display, set the display at a comfortable viewing distance. Make sure the display screen is at eye level or slightly lower when you are sitting in front of the monitor.

Recommended Position



Setting Up Your Notebook

- ❑ Do not place your computer in a location subject to:
  - ❑ Heat sources, such as radiators or air ducts
  - ❑ Direct sunlight
  - ❑ Excessive dust
  - ❑ Moisture or rain
  - ❑ Mechanical vibration or shock
  - ❑ Strong magnets or speakers that are not magnetically shielded
  - ❑ Ambient temperature of more than 95º F (35º C) or less than 41º F (5º C)
  - ❑ High humidity
- ❑ Do not place electronic equipment near your computer. The computer's electromagnetic field may cause a malfunction.

- Provide adequate air circulation to prevent internal heat buildup. Do not place your computer on porous surfaces such as rugs or blankets, or near materials such as curtains or draperies that may block its ventilation slots. Leave a space of at least 8 inches (20 cm) behind the back panel of the computer.
- If the computer is brought directly from a cold location to a warm one, moisture may condense inside your computer. In this case, allow at least an hour before turning on your computer. If any problems occur, unplug your computer, and contact your Sony Service Center.
- The computer uses high-frequency radio signals and may cause interference to radio or TV reception. Should this occur, relocate the computer a suitable distance away from the set.
- Use only specified peripheral equipment and interface cables; otherwise, problems may result.
- Do not use cut or damaged connection cables.
- Your computer will not work with party lines, cannot be connected to a coin-operated telephone, and may not work with multiple phone lines or a private branch exchange (PBX).
- If the telephone company makes a service call to your home or office and determines that your computer is responsible for a problem, the telephone company may bill you for the service call. Also, if you do not disconnect your computer when it is adversely affecting the telephone line, the telephone company has the right to disconnect your service until you correct the problem.

Handling Your Notebook

- Clean the cabinet with a soft, dry cloth or a soft cloth lightly moistened with a mild detergent solution. Do not use any type of abrasive pad, scouring powder, or solvent such as alcohol or benzine, as these may damage the finish of your computer.
- Should any solid object or liquid fall into the computer, shut down your computer and then unplug it. You may want to have the computer checked by qualified personnel before operating it any further.
- Do not drop the computer or place heavy objects on top of the computer.

Cleaning Your Notebook

- Make sure to disconnect the power cord before cleaning the computer.
- Avoid rubbing the LCD screen as this can damage the screen. Use a soft, dry cloth to wipe the LCD screen.
- Clean the computer with a soft cloth lightly moistened with a mild detergent solution. Do not use any type of abrasive pad, scouring powder or solvent, such as alcohol or benzine.

Handling the LCD Screen

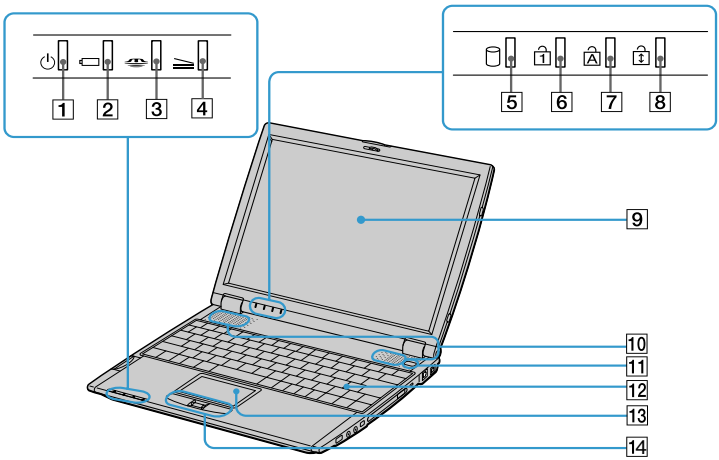
- Do not leave the LCD facing the sun as it can damage the LCD. Be careful when using the computer near a window.
- Do not scratch the LCD or exert pressure on it. This could cause malfunction.
- Using the computer in low temperature conditions may produce a residual image on the screen. This is not a malfunction. When the computer returns to normal temperature, the screen returns to normal.
- The screen becomes warm during operation. This is normal and does not indicate a malfunction.
- The LCD is manufactured using high-precision technology. You may, however, see tiny black points and/or bright points (red, blue, or green) that continuously appear on the LCD. This is a normal result of the manufacturing process and does not indicate a malfunction.

Setting Up Your VAIO® Notebook

This section describes the controls and connectors on your VAIO Notebook, how to connect your notebook to a power source, and how to start and shut down your notebook.

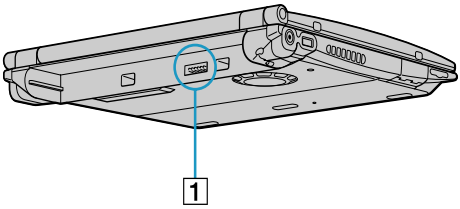
Locating Controls and Connectors

Front



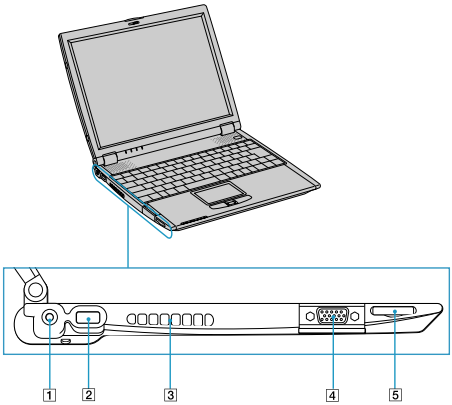
1	Power indicator	**8**	Scroll lock indicator
2	Battery indicator	**9**	LCD screen
3	Memory Stick® indicator	**10**	Speakers
4	Docking Station Indicator	**11**	Power button
5	Hard disk drive indicator	**12**	Keyboard
6	Num lock indicator	**13**	Touchpad
7	Caps lock indicator	**14**	Left and right buttons

Back



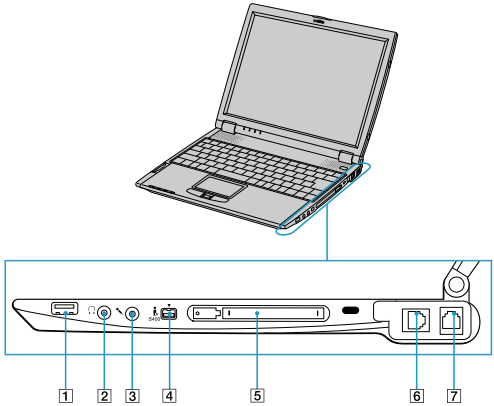
1	Battery connector

Left



1	DC In connector
2	USB connector
3	Air vent
4	Monitor connector
5	Memory Stick® slot

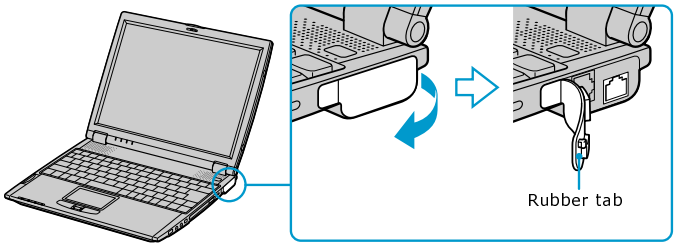
Right



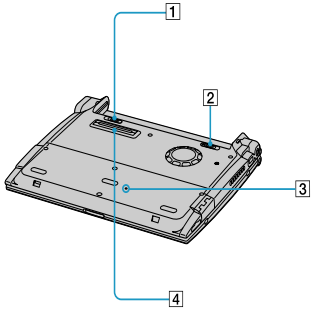
1	USB connector	***5***	PC card slot
2	Headphone jack	***6***	Ethernet connector
3	Microphone jack	***7***	Phone line jack
4	i.LINK® (IEEE1394) S400 connector		

Warning: Connect only 10BASE-T and 100BASE-TX cables to the (Ethernet network) connector. Do not connect to the Ethernet connector any other type of network cable or telephone line. Connecting cables other than those listed above may result in an electric current overload and could cause a malfunction, excessive heat, or fire in the connector. To connect the unit to the network, contact your network administrator.

Gently pull the rubber tab away from the notebook to find the ethernet connector and phone line jack.



Bottom



1	Battery unlock lever	***3***	Reset switch
2	Battery unlock/lock lever	***4***	Docking connector

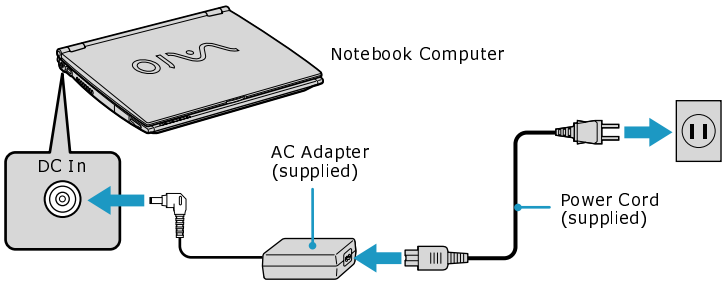
Connecting a Power Source

You can use either AC power or a rechargeable battery pack as a power source.

Using the AC Adapter

1. Plug the cable attached to the AC adapter into the DC In connector on the computer.
2. Plug one end of the power cord into the AC adapter.
3. Plug the other end of the power cord into an AC outlet.

Connecting AC Adapter



Notes on the AC Adapter

- ❑ Your computer operates on 100-240V AC 50/60 Hz.
- ❑ Do not share the AC outlet with other power-consuming equipment, such as a copy machine or shredder.
- ❑ You can purchase a power strip with a surge protector. This device prevents damage to your computer caused by sudden power surges such as those that may occur during an electrical storm.
- ❑ Do not place heavy objects on the power cord.
- ❑ To disconnect the cord, pull it out by the plug. Never pull the cord itself.
- ❑ Unplug your computer from the wall outlet if you will not be using the computer for a long time.
- ❑ When the AC adapter is not used, unplug it from the AC outlet.
- ❑ Use only the AC adapter supplied. Do not use any other AC adapter.

Using Battery Power

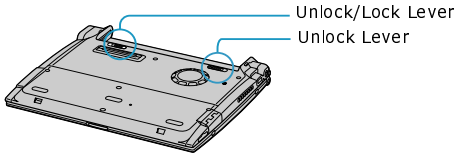
You can use a battery pack as a source of power. The battery pack that comes with your notebook is not fully charged at the time of purchase. Follow the steps below to insert and charge the battery pack.

To insert the battery pack

You can insert or remove the battery pack without turning off the computer when your computer is connected to the AC adapter. Before inserting or removing a battery pack, close the cover.

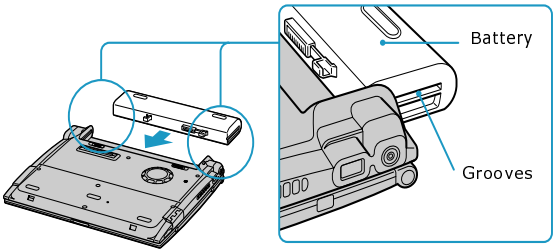
1 Switch the unlock/lock lever on the bottom of the computer to the **UNLOCK** position.

Unlock/Lock Lever



2 Align the grooves and tabs on the battery with the tabs and notches on the back of the notebook, and then slide the battery toward the computer until it clicks into place.

Inserting Battery Pack



3 Slide the lock lever into the **LOCK** position to secure the battery on the notebook.

To charge the battery pack

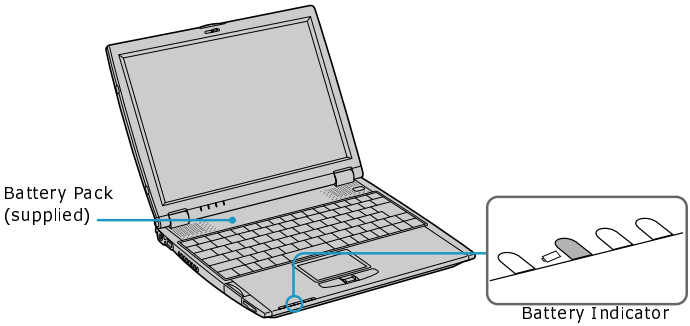
1 Connect the AC adapter to the notebook.

2 Insert the battery pack.

The battery is charging whether or not the notebook is powered on or off. The battery indicator light flashes in a double-blink pattern as the battery charges. When the battery is 85% full, the battery indicator light turns off. This process takes approximately one and one half hours if the notebook is powered off. To charge the battery completely, continue charging it for an additional hour.

The ▭ battery indicator light on the front of the computer indicates the status of the battery pack.

Battery Indicator Light



Battery Indicator Light Status	*Meaning*
On	The notebook is using battery power.
Single blink	The battery is running out of power.
Double blink	The battery is charging.
Off	The notebook is using AC power.

✍ Both the battery and power indicators blink when the battery is running out of power.

To remove the battery pack

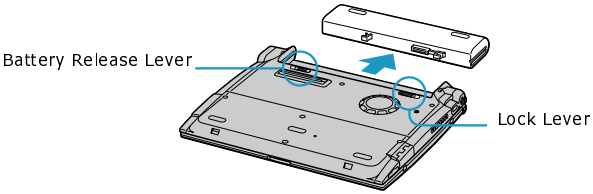
You can insert or remove the battery pack while your notebook is on or off. However, if you insert or remove the battery pack while your notebook is on, make sure the computer is connected to the AC adapter.

1 Close the cover of the notebook.

2 Slide the lock lever to the **UNLOCK** position.

3 Slide the release lever to the **UNLOCK** position and slide the battery away from the notebook.

Removing Battery Pack



✍ You may lose data if you remove the battery pack while the notebook is on and not connected to the AC adapter or if you remove the battery while the notebook is in a power saving mode.

Additional Notes On Batteries

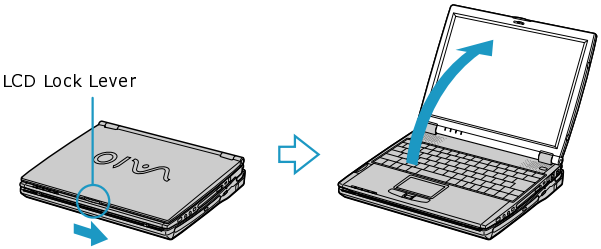
- ❑ Keep the battery pack in the notebook while it is connected to AC power. The battery pack continues to charge while you are using the computer.
- ❑ If your battery level falls to less than 10%, you should either attach the AC adapter to recharge the battery or shut down your notebook and insert a fully-charged battery.
- ❑ You can extend battery life by changing the power management modes in the PowerPanel utility. See “Using Power Saving Modes” .
- ❑ The battery pack supplied with your notebook is a lithium-ion battery and can be recharged at any time. Charging a partially discharged battery does not affect battery life.
- ❑ The battery indicator light is on while you use the battery pack as a power source. When battery life is nearly depleted, the battery indicator flashes.

- Your notebook may not enter Hibernate mode when the battery life is low if certain software applications are active or if certain peripheral devices are connected. To avoid loss of data when using battery power, save your data frequently and manually activate a power management mode.
- Never leave the battery pack in temperatures above 140° F (60°C), such as under direct sunlight or in a car parked in the sun.
- Battery life is shorter in a cold environment. This is due to decreased battery efficiency at low temperatures.
- Charge the batteries at temperatures between 50° F and 80° F (10° C to 30° C). Lower temperatures require a longer charging time.
- While the battery is in use or being discharged, the battery pack heats up. This is normal and is not cause for concern.
- Keep the battery pack away from all sources of heat.
- Keep the battery pack dry.
- Do not open or try to disassemble the battery pack.
- Do not expose the battery pack to any mechanical shock.
- If you are not using the notebook for an extended period of time, remove the battery pack from the computer to prevent damage to the battery.
- If, after fully charging the battery pack, the battery power is still low, the battery pack may be reaching the end of its life and should be replaced.
- You do not need to discharge the battery before recharging.
- If you have not used the battery pack for a considerable amount of time, recharge the battery.

Starting Your Notebook

1 Slide the LCD lock lever in the direction of the arrow, and lift the cover.

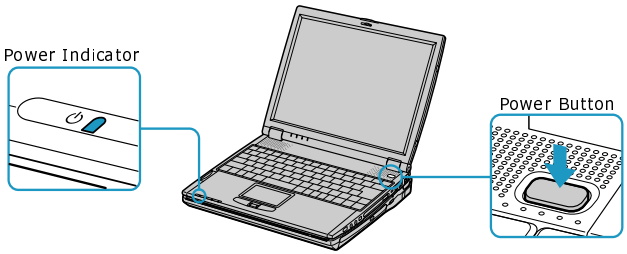
Opening Notebook



2 Press the power button located on the right side of the notebook until the green power indicator light turns on.

✍ (Windows Me only) The VAIO InitManager dialog box appears, when starting your notebook for the first time. Select “OK” to begin initial setup. If you do not execute the initial setup, you cannot use part of the VAIO original hardware functions, such as Center Jog Control, Power Management tool, touchpad scroll function, and keyboard shortcut key function combined with the Fn key.

Turning on Notebook



✍ If you hold the power button in the On position for more than four seconds, the notebook turns off.

3 If necessary, adjust the brightness controls for the LCD display. To decrease the brightness, press Fn+F5 and then the down or left arrow key. To increase the brightness, press Fn+F5 and then the up or right arrow key.

Shutting Down Your Notebook

To avoid potential loss of data, follow these steps to shut down your notebook.

1. Click the Start button on the Windows® taskbar.
2. Click Shut Down at the bottom of the Start menu to display the Shut Down Windows dialog box.
3. Select Shut down.
4. Click OK.

✍ Respond to any prompts warning you to save documents.

5. Wait for your notebook to turn off automatically. It is off when the power indicator light turns off.
6. Turn off any peripherals connected to your notebook.

✍ During a period of inactivity, you can conserve battery life by using Standby mode. See "Controlling Power Management" for more information.

If you are unable to shut down your notebook:

1. Close or end all operations.
   - ❑ Close all applications.
   - ❑ Remove the PC cards.
   - ❑ Disconnect USB devices.
2. Then, restart the notebook. You can restart your computer by pressing the Ctrl+Alt+Delete keys (at the same time).

✍ If you are still unable to shut down the computer, you can press the power button and hold it for four seconds. This operation may result in data loss.

Adding Memory

In the future you may want to install a memory module to expand the functionality of your computer. For this model, 128 MB of memory is pre-installed (64 MB on the motherboard and 64 MB in the memory module bay). You can increase memory up to 192 MB by replacing the 64 MB in the memory module bay with a 128 MB memory module. Expansion memory modules are available as options. For memory upgrades, use only PC-100 SDRAM SO-DIMM (gold lead contacts).

Related Safety Guidelines

Sony recommends memory upgrades be performed by an authorized Sony Service Center. To find the nearest center or agent, see http://www.sony.com/pcsupport.

Make sure that you observe the proper safety precautions when you install a memory module in your computer. See the bulleted list below. Be careful when adding memory. Mistakes when installing or removing a memory module may cause a malfunction.

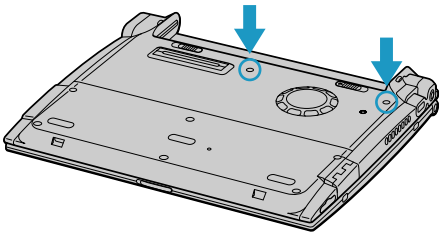
- The procedures described below assume familiarity with the general terminology associated with personal computers and with the safety practices and regulatory compliance required for using and modifying electronic equipment.
- Disconnect the system from its power source and from any telecommunications links, networks, or modems before you open the system or follow any of the procedures described below. Failure to do so may result in personal injury or equipment damage.

- Electrostatic discharge (ESD) can damage disk drives and other components. Perform the procedures described below only at an ESD workstation. If such a station is not available, do not work in a carpeted area, and do not handle materials that produce or hold static electricity (cellophane wrappers, for example). Ground yourself by maintaining contact with an unpainted metal portion of the chassis while performing the procedure.
- Do not open the memory module package until you are ready to install the module. The package protects the module from ESD.
- Use the special bag for preventing ESD or use aluminum foil when you store the memory module.

To Install a Memory Module

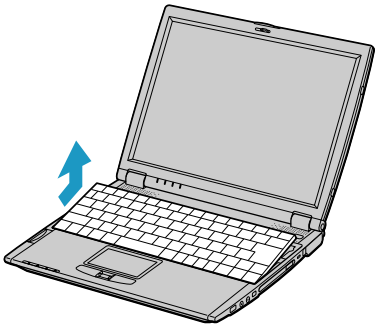
1. Shut down your computer and disconnect all peripheral devices, such as your printer.
2. Unplug the computer and remove the battery packs.
3. Wait until the computer cools down. Then unscrew the two screws with the ⇐ mark on the bottom of your computer.

Screws on Bottom of Computer



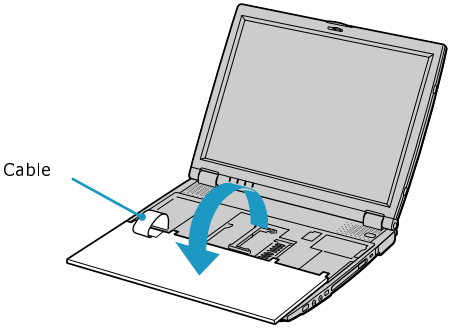
4 Slide the LCD lock lever and lift the cover. Slide the keyboard toward the LCD display, then lift it away slightly.

Lifting the Keyboard



5 Lift the keyboard from the LCD display side, then gently turn it over on the touchpad space. Be careful not to detach the cable when lifting the keyboard.

Turning the Keyboard



6 You must remove the existing memory module. Follow the instructions in “To Remove a Memory Module” .

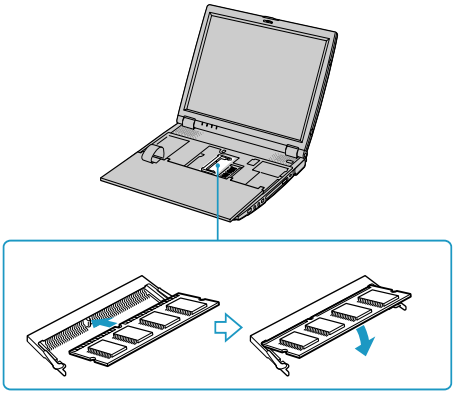
7 Remove the memory module from its packaging.

8 Install the memory module.

✍ Note the following:

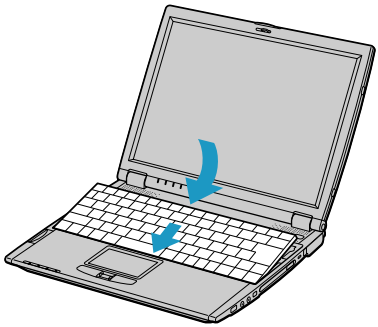
- ❑ Be careful not to touch the other components on the motherboard.
- ❑ Be sure that both ends of the memory module click.

Installing the Memory Module



9 Gently replace the keyboard, then press it into your computer. Be careful not to detach the cable when lifting the keyboard.

Replacing the Keyboard



10 Close the computer cover, then tighten the screws on the bottom of the computer.

To Remove a Memory Module

1. Perform steps 1 to 5 of "To install a memory module."
2. Touch a metal object (such as the connector panel on the back of your computer) to discharge static electricity.
3. Remove the memory module.
4. Perform steps 8 and 9 of "To install a memory module."

About the Software on Your Notebook

Your VAIO notebook is ready to help you work, play, learn, and communicate as soon as you turn it on. This section provides you the following:

- *An overview of the various software that come with your computer and the activities you can perform with your software*
- *Details on your Sony application, driver, and system recovery CDs*
- *Software support information*

Overview of the Software on Your Notebook

Adobe Acrobat Reader®

Adobe Systems Inc.

Acrobat Reader software allows you to view, navigate, and print electronic documents in Adobe Portable Document Format (PDF)—an open file format that is intended to preserve the fidelity of documents created on all major computer platforms.

Adobe PhotoDeluxe® Home Edition (Windows® Me only)

Adobe Systems Inc.

Create amazing photo effects with Adobe PhotoDeluxe. Without learning complex software, you can enhance, restore, and be creative with your photos. The software includes built-in guided activities, stock photos, clip art, and templates to assist you.

America Online®

America Online, Inc.

America Online is a popular Internet online service. Stay in touch with family and friends with easy-to-use e-mail, manage your personal finances, get the latest news and sports scores, and chat with thousands of others who share your interests.

ArcSoft® PhotoPrinter™ 2000 Pro (Windows Me only)

ArcSoft, Inc.

ArcSoft PhotoPrinter 2000 Pro is an easy-to-use, advanced printing program that lets you quickly lay out multiple images in multiple sizes on a single sheet of paper. PhotoPrinter Pro offers a wide selection of templates including landscape, portrait, free style, mixed sizes, custom templates and more. The application includes enhancement tools and special effects for improving photos while giving you the ability to add text to any image.

CompuServe® 2000

CompuServe

CompuServe is the most comprehensive source of organized business and educational information online today. CompuServe allows you to access the vastness of the Internet, without wasting time wading through it. Maximize your time online with CompuServe.

Drag'n Drop CD

DigiOn Inc. and Easy Systems Japan Ltd.

Drag'n Drop CD is designed to be the most simple software to make your own CD. Users can create their own best AudioCD, or data CD that can be read in many PCs. With Drag'n Drop CD you can also create your own backup CD from the original CD that you own.

DVgate™

Sony Electronics Inc.

Connect a digital video camera recorder to the i.LINK® connector and capture your own video clips and still images. You can edit the clips from your video, add others, and combine clips into new movie segments. You can also save your images in a variety of popular file formats.

EarthLink Network TotalAccess®

EarthLink Network, Inc.

An Internet Service Provider that supplies access, information, and assistance to its customers, introducing them to the Internet. Member benefits include e-mail, newsgroups, a personal start page, a free 6 MB web site, a member newsletter, and 24-hour technical support.

JogDial Utility

Sony Electronics Inc.

JogDial Utility allows you to easily scroll, launch applications, access settings, and perform other useful functions by manipulating the center Jog Dial™ control, which is located near the touchpad.

McAfee® VirusScan®

Network Associates, Inc.

Protect your computer from viruses. VirusScan can detect viruses from floppy disks, Internet downloads, e-mail attachments, intranets, shared files, CD-ROMs, and online services.

Media Bar™

Sony Electronics Inc.

Media Bar software is your all-in-one solution for audio/video playback. Media Bar software handles all common computer multimedia formats and controls selected Sony devices. In addition to audio/video library cataloging and playlist management, Media Bar software includes digital video quality control and effects features. Media Bar software seamlessly integrates a variety of new media formats with an easy-to-use software interface.

Microsoft® Internet Explorer

Microsoft Corporation

Internet Explorer delivers the web the way you want it. It is safe, easy to use, and you can personalize how you access the web. Outlook Express and other tools in Internet Explorer also help you have a great experience when you are on the web.

Microsoft® Word 2000

Microsoft Corporation

Microsoft Word 2000 makes it easy to create common Web, e-mail, and print documents for use around the world. It embraces HTML as a first-class file format and extends this software's ease-of-use to the Web and e-mail. Word 2000 also extends that ease-of-use to international users, making it simple to create multilingual documents.

MovieShaker™

Sony Electronics Inc.

Sony's original MovieShaker software creates personal movies that have transitions, background music and text. Just import your video clips and "shake" with the click of a mouse. Your personal movies are easy to create and fun to share with family and friends. (See "MovieShaker™" .)

Netscape Communicator®

Netscape Communications

Netscape Communicator is an all-in-one Internet tool that makes it easy to browse the web, send Internet e-mail, chat, read newsgroups and compose great web documents.

OpenMG™ Jukebox (Windows® Me only)

Sony Electronics Inc.

OpenMG Jukebox software enables you to import digital audio files by downloading audio files from Electronic Music Distribution (EMD) services over digital networks, such as the Internet. You can record audio CDs onto your hard drive in a variety of formats.

PictureGear™

Sony Electronics Inc.

This image management software displays images from your hard drive, a Sony Digital Still Camera, or a Sony Mavica® Camera. The images appear in a convenient light-table format, so that you can easily view the contents of an entire folder. (See "PictureGear™" .)

PowerPanel

Sony Electronics Inc.

The PowerPanel utility controls the power management of your notebook computer and provides key information about system activity and battery life. Automatic power management selects the most appropriate profile, depending on the application with which you are working and the conditions of use. See the "PowerPanel" chapter or the PowerPanel Help file for details.

Prodigy Internet®

Prodigy Communications Corporation

An online service that helps you find what you need online faster and smarter. Prodigy delivers powerful online content such as sports scores, stock quotes, news, and easy access to Excite, plus quality customer service, all at a competitive price.

Quicken® 2001

Intuit, Inc.

Quicken is a fast, easy way to organize your finances. Quicken works just like your checkbook, so it is easy to learn and use. Quicken manages all your finances, bank accounts, credit cards, investments, and loans. You can even pay your bills online.

QuickTime™

Apple Computer, Inc.

QuickTime is the Apple technology that makes video, sound, music, 3D, and virtual reality come alive for your Internet browser and Windows.

RealPlayer®

RealNetworks, Inc.

RealPlayer is the RealNetworks video and audio player which lets you access 2,500 radio stations featuring music, news and sports.

RealProducer® G2

RealNetworks, Inc.

RealProducer converts your audio and video files, or live feeds, into RealAudio and RealVideo for the Internet or your intranet. RealProducer is easy to use, gives you better control over your content, and is packed with exclusive features. Featuring support for CD-quality RealAudio 8 and VHS-quality RealVideo 8, RealProducer is an excellent choice for both beginners and pros.

Smart Capture

Sony Electronics Inc.

Smart Capture is a fun new way to send multimedia messages via e-mail. Smart Capture manages the i.LINK connection between your computer and a Sony Digital Handycam® camcorder that supports the i.LINK interface. It allows you to capture compressed video or still images that you can save or share via e-mail. A smart solution to computer, digital audio/video and network convergence.

Smart Connect (Windows® 2000 only)

Sony Electronics, Inc.

Smart Connect allows you to use an i.LINK cable to connect your VAIO notebook to another computer that supports Smart Connect. You can then use one computer to copy, delete, and edit files on the other computer. You can also print from a printer attached to either computer.

VAIO Action Setup

Sony Electronics, Inc.

VAIO Action Setup manages the settings for your computer's Shortcut keys and i.LINK interface.

VAIO Support Agent

Sony Electronics, Inc.

VAIO Support Agent provides immediate, interactive, on-line support.

WinDVD

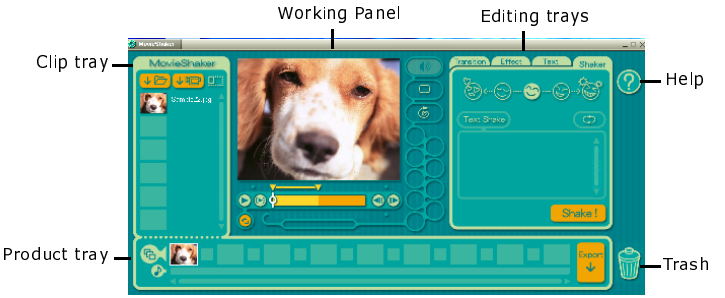
InterVideo, Inc.

WinDVD is a simple-to-use DVD player that plays DVD titles, combining all the features you would expect to find in a standard consumer DVD player, in addition to some very advanced functionality, such as full VCD 2.0 support, full precision video decode, a choice of user interfaces, and video display options. WinDVD automatically determines the type of disc in the DVD drive and uses the correct playback method.

MovieShaker™

This application can be used to create fun and innovative movies without any knowledge of film editing. In a few simple steps, motion pictures can be combined with special effects, still images (pictures), and music files and then saved in a format most computers can play.

Main Window



Importing Images and Sound Clips

1 Click (File Import) or (DV Import).

2 Find the file you want to add.

3 Select the file.

4 Click Open. The file is added to the Clip tray.

Importing files over 75 seconds in length may cause MovieShaker to stop responding.

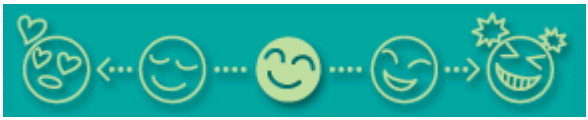
Create a Movie using Shaker

After adding clip(s) to the Clip tray, you can create a short movie using the Shaker feature. Shaker randomly select clips from the Clip tray to create a 30-second scene.

1 Click the Shake tab.

2 Select a mood by clicking a face in the Shaker tray.

Shaker Tray



3 Click Shake ! . A thirty second scene is automatically generated and saved to the Product tray.

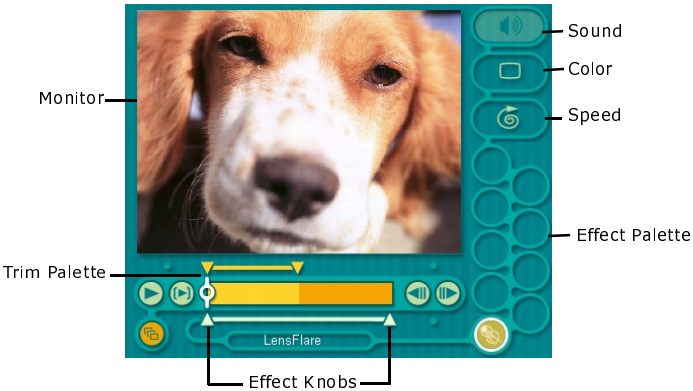
4 To preview, switch the Work Panel to Product tray mode and press play.

✍ Scenes created with Shaker begin with black frame and after processing are placed in the first available slot on the Product tray. Limit the number of scenes placed on the Product tray to 10 or less. MovieShaker may stop responding if too many scenes are placed on the Product tray.

Editing Clips and Scenes

You can edit your movie by adding effects and text, adjusting the color and contrast, and modifying the length of clips.

Working Panel



Adding effects to a scene or a clip:

1. Double-click the clip or scene to move it to the Working Panel.
2. Select the Effects tab from the Editing tray.
3. Drag and drop the Effect you want to add from the Effects tray to the Effects palette on the Working Panel.

To preview an Effect, click on the clip in the Working panel monitor. Your clip displays with the new effect on the Effect tray monitor.

4. See help for instructions on adjusting effect duration and replaying clips/scenes.

Saving a Movie

1. Verify that the clip(s) you want to save is on the Product tray. See Help for more details on saving movies.
2. Click Export.
3. Select the format in which you want the document to be saved.
4. Click Next.
5. Locate the folder to which you want the file saved.
6. Name the file.
7. Click Save.

Exporting movies may take a long time to complete—Saving movies as DV (Digital Video) takes the longest and Quick-Save is the fastest. MovieShaker can play video files up to 65 MB in length.

For DV playback and smooth video playback, we recommend the following resolution/refresh rates: 1024 x 768/75 Hz or lower.

PictureGear™

PictureGear is a digital image management application that allows you to see all the images stored in any directory on your computer. Thumbnail views provide quick reminders of your pictures. Brighten, contrast, enhance, resize, crop, and color-correct your pictures. Create panoramic views, animations, screen savers, wallpaper, still pictures from MPEG, and even html photo albums.

Managing Your Pictures

Use the collection feature to manage your pictures.

1. Click the Folder tab and browse to locate your pictures.
2. Select the pictures you want to have in a collection.
3. From Collection menu, select Create New Collection.
4. Enter a name for the collection and then click OK.

Creating a Photo Album

1. Select the pictures you want to use to make an album.
2. From the Utilities menu, select Album Maker.
3. Choose the type of Album you want and click OK.
4. Now add more pictures, frames, text, and effects.
5. When you are finished, select Create Album in File menu or click the Create Album icon on the toolbar.
6. Designate the folder where you want to save the Album.
7. Enter the Target Album name, select Thumbnails and click OK.
8. The new album can be viewed using most internet browsers.

Using Panorama Maker

Panorama Maker stitches a group of still images into a 360 degree panoramic picture. The source images should be the same size and overlap 20%.

How to stitch a panoramic picture:

1 Gather the source images into the same folder or collection.

2 Select the images you want to use.

✍ We recommend 12 landscaped or 16 portrait pictures.

3 From the Utilities menu select Panorama Maker.

4 Select the correct lens and click OK. (If 35mm lens is selected, the prompt does not appear; to select a different lens, click the lens icon.)

5 Click the panoramic icon, near the bottom of the window.

6 Click Full Stitch.

Making Still Images and Panoramic from MPEG

1 Select the MPEG file.

2 From the Movie/Sound menu, select Scene break down.

3 Then select Movie Stitch, to create a panoramic picture.

Application, Driver, and System Recovery CDs

Your computer comes with the following application, driver, and system recovery CDs. (To use your recovery CDs, see "Using the Application Recovery CD(s)" .)

About Your Recovery CDs

Application Recovery CD(s)
Sony Electronics, Inc.
This program allows you to reinstall individual applications and device drivers. Use it to restore corrupted or accidentally erased files.

Driver Recovery CD(s)
Sony Electronics, Inc.
This program allows you to reinstall individual device drivers. Use it to restore corrupted or accidentally erased files.

System Recovery CD(s)
Sony Electronics, Inc.
This program allows you to restore the software titles that shipped with your computer if they become corrupted or are erased accidentally. It can be used only to restore the hard disk of this Sony computer.

Using the Application Recovery CD(s)

The Application Recovery CD(s) allows you to reinstall individual applications if they become corrupted or are accidentally erased. Reinstalling an individual software title may correct a problem you are experiencing with your computer or software application; you may not need to reinstall the entire contents of your hard drive. If you need to reinstall all the software titles that shipped with your computer, use the System Recovery CD(s). See "Using the System Recovery CD(s)" .

You can also use the Application Recovery CD to install Windows 2000 drivers on your computer.

✍ You must be in Windows to run the Application Recovery CD. If you have any questions on using the Application Recovery CD, contact Sony Customer Support.

To use the Application Recovery CD(s)

1. Turn on your computer. If your computer is already on, close all applications.
2. When the Windows desktop appears, insert the Sony Application Recovery CD in the optical drive. The Application Recovery utility loads automatically.
3. When the Application Recovery menu appears, select the icon for the application you want to restore and then follow the on-screen instructions to complete the recovery process.

✍ Your system may include one or two Application Recovery CDs. If you have two Application Recovery CDs, insert the first CD to run the Application Recovery program. You may be prompted to insert the second CD, depending on the application you wish to restore.

Using the Driver Recovery CD(s)

The Driver Recovery CD utility allows you to reinstall individual drivers and repair software applications if they become corrupted or are accidentally erased. You can reinstall an individual driver to correct a problem that you are experiencing with your computer, hardware, or software application. VAIO Support Agent uses a vault feature on the Driver Recovery CD(s) to repair software applications.

✍ You must be in Windows to run the Driver Recovery CD utility.

To Use the Driver Recovery CD(s)

1. Turn on your computer. If your computer is already on, close all applications.
2. When the Windows desktop appears, insert the Driver Recovery CD in the optical drive. The Driver Recovery utility loads automatically.
3. When the Driver Recovery menu appears, follow the on-screen instructions to complete the recovery process.

To repair software applications using VAIO Support Agent

The Driver Recovery CD utility has an information vault that contains the original characteristics for the preinstalled software applications that are protected by VAIO Support Agent.

Using the System Recovery CD(s)

You can reinstall software titles that shipped with your computer if they are corrupted or erased. You may not need to recover the entire contents of your hard drive. If you experience a problem with your computer, reinstalling an individual device driver or software title may correct the problem. Use the Application Recovery CD(s) to reinstall individual applications or device drivers. See “Using the Application Recovery CD(s)” .

The System Recovery CD contains a backup copy of all the software originally installed on your hard disk drive. **It can be used only to recover the hard disk of the notebook you purchased.**

The System Recovery utility gives you Full Restore with Format, that is it formats the hard disk drive then restores all the original software.

! Full Restore with Format removes all the information on the hard disk drive. You will lose any software you have installed and any other files you have created since you started to use your computer. This means you will have to reinstall any applications that were not included with the computer when you purchased it. If you have any questions on using the System Recovery CD, contact Sony Customer Support.

To use the System Recovery CD(s)

1. Insert the Sony System Recovery CD in the optical drive.
2. Shut down your computer as described in “Shutting Down Your Notebook” .
3. Wait four seconds and turn on your computer.
4. Click OK to signify you have read and accept the Microsoft End-User License Agreement.
5. When the System Recovery menu appears, follow the on-screen instructions to complete the recovery process.

If your computer does not start from the Recovery CD

1. Press the power button and hold it for more than four seconds to turn off the computer.
2. Turn on the computer. When the Sony logo is displayed, press the F2 key. The BIOS setup menu screen appears.
3. Press the arrow keys to select the Exit menu.
4. Press the arrow keys to select "Get Default Values" and then press the Enter key. The message "Load default configuration now?" appears.
5. Check that "Yes" is selected, then press the Enter key.
6. Press the arrow keys to select "Exit" (Save Changes) and then press the Enter key. The message "Save configuration changes and exit now?" appears.
7. Check that "Yes" is selected, then press the Enter key. The computer restarts from the Recovery CD.

✍ Your system may include one or two System Recovery CDs. If you have two System Recovery CDs, insert the first CD to run the System Recovery program. You are prompted to insert the second CD once the information from the first CD has been installed.

The recovery process takes from 30 to 60 minutes to complete.

After recovering your system using the SRCD, you may be prompted to insert your ARCD after restarting Windows. Insert the ARCD to automatically complete recovery of your system.

Recovering Microsoft® Word 2000

If you recover your operating system using the System Recovery CD, Microsoft Word 2000 will not be recovered. Use the supplied Word 2000 CD-ROM to recover this application.

Software Support Information

Adobe Acrobat Reader®, Adobe PhotoDeluxe® Home Edition

Web site	http://www.adobe.com/
phone	206-675-6126 (fee-based support)
e-mail	techdocs@adobe.com
hours	M-F, 6 AM-5 PM PT

America Online®

Web site	http://www.aol.com
phone	800-827-3338
hours	7 days a week, 24 hours a day

QuickTime™

Web site	http://www.apple.com
phone	512-674-8700*
hours	7 days a week, 6 AM-6 PM PT

* Support is for 90 days after the original date of purchase for most Apple products.

CompuServe® 2000

Web site	http://www.compuserve.com
phone	800-848-8990

Drag'n Drop CD

e-mail	contact@digion.com

EarthLink Network TotalAccess®

Web site	http://help.earthlink.net/techsupport/
phone	800-395-8410
e-mail	support@earthlink.net
hours	7 days a week, 24 hours a day

McAfee® VirusScan®

Web site	http://support.mcafee.com
phone	408-988-3832
e-mail	cybr@nai.com
hours	M-F 9AM-5PM Central Time

Netscape Communicator®

Web site	http://www.netscape.com/
phone	888-4SONYPC (888-476-6972)*
hours	7 days a week, 24 hours a day

PhotoPrinter™ 2000 Pro

Web site(s)	http://www.arcsoft.com http://www.photoisland.com
phone	510-440-9901
fax	510-440-1270
e-mail	techsupport@arcsoft.com
hours	M-F, 8:30 AM-5:30 PM PT

Prodigy Internet®

Web site	http://www.prodigy.com
phone	800-213-0992
hours	7 AM - 3 AM ET

Quicken® 2001

Web site	http://www.intuit.com/support
phone	900-555-4688
hours	7 days a week, 24 hours a day

RealPlayer®, RealProducer® G2

Web site	http://www.realnetworks.com/
phone	206-674-2681
fax	206-674-3586
e-mail	http://service.real.com (online form)
hours	M-F, 8 AM-5 PM PT

Sony Applications

Web site	http://www.sony.com/pcsupport
phone	888-4SONYPC (888-476-6972)*
hours	7 days a week, 24 hours a day

* Support from 1-888-4SONYPC is free of charge for 90 days after the original date of purchase.

Windows® Operating System, Internet Explorer, Word 2000

Web site	http://www.microsoft.com/support/
phone	888-4SONYPC (888-476-6972)*
hours	7 days a week, 24 hours a day

* Support from 1-888-4SONYPC is free of charge for 90 days after the original date of purchase.

WinDVD

Web site	http://www.intervideo.com/jsp/Support.jsp
e-mail	support@intervideo.com

Sony Service Center

For the Sony Service Center nearest you, call 1-888-4SONYPC (1-888-476-6972) or find Sony Customer Service on the Web at http://www.sony.com/pcsupport.

Troubleshooting

This section describes how to solve common problems you may encounter when using your notebook. Since many problems have simple solutions, try these suggestions before you contact Sony PC Support (http://www.sony.com/pcsupport).

Troubleshooting Your Notebook

My notebook does not start.

- ❑ Check that the notebook is plugged into a power source and that it is turned on. Check that the power indicator on the front panel of the notebook indicates that the power is on.
- ❑ Check that the battery packs are inserted properly and that they are charged.
- ❑ Make sure there is no diskette in the floppy disk drive.
- ❑ Confirm that the power cord and all cables are connected firmly, as described in ”Connecting a Power Source” .
- ❑ If you plugged the notebook into a power strip or UPS, make sure the power strip or UPS is turned on and working.
- ❑ If you are using an external display, check that it is plugged into a power source and turned on. Check that the brightness and contrast controls are adjusted correctly. See the manual that came with your display for details.
- ❑ Moisture condensation may have occurred. Do not use the notebook for at least one hour and then turn on the notebook.
- ❑ Take the battery pack off the notebook, unplug the power cord and plug it again, then turn on the power.
- ❑ If you shut down your notebook using a series of program errors, the power control button may not function. Push the Reset switch on the back of your notebook with a thin, pointed object to start your computer. If your notebook still does not start, remove the AC adapter and battery pack and wait one minute, then reattach them and press the power button.

When starting my notebook for the first time, the VAIO InitManager dialog box appears. (Windows Me only)

Select "OK" to begin initial setup. If you do not execute the initial setup, you cannot use part of VAIO original hardware functions such as Power Management tool, scroll function of touchpad, and keyboard shortcut key function combined with the Fn key.

My notebook starts, but my system doesn't start properly.

When the internal backup battery is low on power, your system may not start properly, and the message "Press <F1> to resume, <F2> to setup" may appear at the bottom of the screen. In such a case, proceed as follows:

1. Press F2. The BIOS Setup menu appears.
2. Set the date (month/day/year). Press Enter.
3. Press ↓ to select System Time, then set the time (hour: minute: second). Press Enter.
4. Press → to select Exit, then press ↓ to select Get Default Values. The message "Load default configuration now?" appears.
5. Select Yes and press Enter.
6. Select Exit (Save Changes), then press Enter. The message "Save Configuration changes and exit now?" appears.
7. Select Yes, then press Enter. The notebook restarts.

My notebook starts, but the message "Operating system not found" appears and Windows does not start.

- ❑ Make sure there is no diskette in the floppy disk drive (non-bootable).
- ❑ If a non-bootable diskette is in the drive, proceed as follows:
  1. Turn off the notebook, then remove the diskette.
  2. Restart the notebook and confirm that Windows starts properly.

- If Windows still does not start, follow the steps below to initialize the BIOS:

  1 Remove any diskette from the floppy disk drive.

  2 Turn off the notebook.

  3 Remove any peripheral devices connected to the notebook.

  4 Turn on the notebook.

  5 Press the F2 key when the Sony logo appears, to access the BIOS setup menu.

  6 Press the directional arrow keys to select the Exit menu.

  7 Press the arrow keys to select "Get Default Values" then press Enter. The message "Load default configuration now?" appears.

  8 Select Yes, then press Enter.

  9 Use the directional arrow keys to select "Exit" (Save Changes), then press Enter. The message "Save configuration changes and exit now?" appears.

  10 Select Yes, then press Enter. The notebook restarts.

✍ If your notebook continues to display the message "Operating system not found", and Windows does not start, contact Sony Customer Support.

My notebook stops responding or does not shut down.

It is best to use the Shut Down command on the Windows Start menu to shut down your notebook. Using other methods, including those listed below, may result in loss of unsaved data.

- Click the Start button on the Windows taskbar, then click Shut Down, then click Restart.
- (Windows Me) If the preceding step does not work, press Ctrl+Alt+Delete twice to restart the notebook.
  (Windows 2000) If the preceding step does not work, press Ctrl+Alt+Delete and click Shut Down on the Windows Security screen to restart the notebook.
- If the preceding step does not work, press and hold the power button for at least four seconds to turn off the power.
- If the preceding step does not work, unplug the notebook from the AC adapter and remove the battery pack from your notebook.

- (Windows Me) If your notebook stops responding while playing a CD or DVD, stop the CD/DVD and press Ctrl+Alt+Delete twice to restart the notebook.
  (Windows 2000) If your notebook stops responding while playing a CD or DVD, press Ctrl+Alt+Delete and click Shut Down on the Windows Security screen to restart your notebook.

✍ Pressing Ctrl+Alt+Delete or turning off the notebook with the power switch may result in data loss in files that are currently open.

My notebook does not enter the power saving mode I selected. (Windows® Me only)

To enable your notebook to enter the power saving mode you select, proceed as follows:

1. Click Start, point to Program, point to Accessories, point to System Tools, then click System Information. The Help and Support window appears.
2. Click System Configuration Utility under the Tools menu.
3. Click the Advanced button on the General tab, and Confirm the following information:
   - The message “Standby function is enabled” is displayed.
     If the message reads “Standby function is disabled”, click the Enable button.
   - The message “Hibernate feature is enabled” is displayed.
     If the message reads “Hibernate feature is disabled”, click the Enable button.
4. Click OK and restart your notebook.

I cannot see the “Removable Disk (S:)” in “My Computer” on the desktop. (Windows® Me only)

1. Click Start, point to Settings, and select Control Panel to open the Control Panel window.
2. Double-click System to access the System Properties window.

   If you cannot find System, click Display Control Panel options in the Control Panel window.

3 Select the Device Manager tab.

4 Click [Refresh].

My notebook is unstable.

Your notebook's operating system may become unstable if a lower power state, such as Hibernate, is initiated then changed before the notebook completely enters the lower power state. To restore the notebook to its normal operating stability:

1 Close all open applications.

2 Press and hold the power button for four seconds or longer to shut down the notebook.

The sound of my notebook's fan is too loud.

Use the PowerPanel utility to change the Thermal Control Strategy setting to Quiet. This setting slows down the CPU speed. See PowerPanel Help for more information.

Troubleshooting the Docking Station

I cannot operate the optical drive in the docking station, when the docking station is connected to the notebook.

Follow these steps to set the i.LINK network switch.

1. Disconnect your notebook from the docking station.
2. Disconnect the AC adapter and all cables from your docking station.
3. Set the i.LINK network switch on the bottom of the docking station to the unmarked side, with a thin pen tip.
4. Connect the docking station to the notebook.
5. Turn on your notebook.

✍ Do not set the i.LINK network switch when the notebook is on. This causes the notebook to malfunction.

Set the i.LINK network switch after removing all cables connected to the docking station.

I cannot operate the optical drive in the docking station, when the docking station is connected to the notebook and the notebook is connected to another computer via i.LINK.

Set the i.LINK network switch at the bottom of the docking station to the marked ● side. See ”If Your Notebook is Connected to the Optional Docking Station” for details.

An error message appears while disconnecting the docking station, even after following the correct procedure for disconnecting the docking station.

Close the software in use, disconnect other devices being used, then try to disconnect the docking station from the notebook.

I cannot remove the disc.

You cannot remove the disc when the computer is in power saving mode. Return to normal mode, then press the Eject button.

The disc tray does not eject even after I press the Eject button.

Open the tray by inserting a sharp, pointed object in the manual eject hole.

Troubleshooting the LCD Screen

My LCD screen is blank.

- ❑ Verify that the notebook is plugged into a power source and that it is turned on.
- ❑ Verify that the power indicator on the notebook is on.
- ❑ Verify that the battery pack(s) is inserted properly and is charged.
- ❑ The notebook may be in LCD (Video) Standby mode. Press any key to activate the screen.
- ❑ The display mode may be set to external display mode. Press and hold the Fn key while pressing F7 several times.

My LCD screen continues to show the previous screen.

Press the Windows key and D key twice to refresh the screen.

The image on my connected external display is not centered or sized properly.

Use the controls on your external display to adjust the image. See the manual that came with your display for more information.

I want to change the video resolution of my display.

1 Click Start, point to Settings, point to Control Panel, then double-click the Display icon. The Display Properties dialog box appears.

2 Click on the Settings tab.

3 Move the Screen Area slider to change your video resolution.

Troubleshooting the Mouse and Touchpad

My mouse does not work.

- If you are using an external mouse, verify that the mouse is plugged into the mouse connector. See ”Connecting a Universal Serial Bus (USB) Device” for details.
- If you are using an optional Sony USB mouse PCGA-UMS1 series, verify that the mouse is plugged into the USB connector.

My touchpad does not work properly.

- You may have disabled the touchpad without connecting a mouse to the notebook. To enable the touchpad:
  1. Click Start > Programs > Sony Notebook Setup.
  2. Select the Touchpad tab.
  3. Click Use touchpad and click OK.
- If your touchpad is interpreting a single tap as a double-click, adjust the button assignments as follows:
  1. Click Start, point to Control Panel, then double-click on the Mouse icon. The Mouse Properties dialog box appears.
  2. Change the button assignments in the Mouse Properties dialog box. (One of the buttons is assigned to the double-click action.)

The pointer does not move (while using the Touchpad or Mouse).

Click the Start button on the Windows taskbar, select Shut Down to display the Shut Down Windows dialog box, then press Enter.

- (Windows Me) If you cannot turn off your notebook as described in the step above, press Ctrl+Alt+Delete twice to restart the notebook.
  (Windows 2000) If you cannot turn off your notebook as described in the step above, press Ctrl+Alt+Delete and click Shut Down on the Windows Security screen to restart the notebook.
- If you cannot restart your notebook as described in the step above, press and hold the power button for more than four seconds to turn off the notebook.

- If the pointer does not move while playing a disc, press Ctrl+Alt+Delete to stop playback and restart the notebook.

Troubleshooting Drives, PC Cards, and Peripheral Devices

My floppy disk drive can not write to a diskette.

- If the diskette is write-protected, disable the write-protect feature or use a diskette that is not write-protected.
- Verify that the diskette is properly inserted into the floppy disk drive.

My optical drive is not playing my CD or DVD properly.

- Make sure the label of the disc is facing up.
- If the disc requires software, make sure the software is installed according to the manufacturer's instructions.
- A dirty or damaged disc may cause the notebook to stop responding while it tries to read the disc. If necessary, restart the notebook, remove the disc, and check disc for dirt or damage.
- If you see video but can not hear audio, check all of the following:
  - Check that your optical drive does not have the mute setting enabled.
  - Check the volume setting in the audio mixer.
  - If you are using external speakers, check the volume settings, and then check the connections between your external speakers and the notebook.
  - Click Start, point to Settings, point to Control panel, then double-click System. The System Properties dialog box appears.
  - Click the Device Manager tab.
  - Verify that the correct drivers are installed properly.
- Do not use adhesive labels to identify the CD. The label may come off while the disc is in use in the optical drive and cause the drive to malfunction.
- If a region code warning appears when you try to use your optical drive, it may be that the DVD you are trying to play is incompatible with the optical drive. Verify that the region code listing on the DVD packaging is region "1" or "0".

- ❑ Moisture condensation may have occurred. Leave the notebook idle for at least 1 hour with the notebook turned on.

The DVD videos cannot be played properly. (Windows® Me only)

Follow these steps, to correct this condition.

1 Click Start, point to Settings, and click Control Panel to access the Control Panel window.

2 Double-click Display to access the Display Properties dialog box.

3 Click the Setting tab.

4 Click the Advanced button.

5 Click the Adapter tab, and set RefreshRate to 60 Hz.

6 Click OK.

My optical drive tray does not open.

- ❑ Make sure the notebook is turned on.
- ❑ Press the Eject button on the optical drive.
- ❑ If the Eject button does not work, open the tray by inserting a thin pen tip in the hole to the right of the Eject button.

I cannot use digital video (DV) devices. The message "DV equipment seems to be disconnected or turned off" appears.

- ❑ Verify that the DV device is turned on and that the cables are properly connected.
- ❑ If you are using multiple i.LINK* devices, the combination of the connected devices may cause unstable operation. In this case, proceed as follows:

  1 Turn off your notebook and all connected devices.

  2 Disconnect the devices that are not in use.

  3 Ensure that all other devises are properly connected.

  4 Restart your notebook.

My PC card does not work.

- ❑ Make sure the PC card is compatible with Microsoft® Windows®.
- ❑ Use the Sony Notebook Setup utility to disable devices you are not currently using.

Troubleshooting the Software

My software program stops responding or crashes.

Contact the software publisher or designated provider for technical support. See ”Software Support Information” .

When I click an application icon, the message “You must insert the application CD into your optical drive” appears and the software does not start.

- ❑ Some titles require specific files that are located on the application CD. Insert the disc and try starting the program again.
- ❑ Make sure you place the CD in the tray with the label side facing up.

I hear background “noise” while using Windows Media Player to play my music CDs.

Sony suggests using the preinstalled Media Bar software to play audio CDs.

SmartCapture software does not start. (Windows® Me only)

Follow these steps to correct this condition.

1 Click Start, point to Settings, and click Control Panel to access the Control Panel window.

2 Double-click Display to access the Display Properties dialog box.

3 Click the Setting tab.

4 Click the Advanced button.

5 Click the Adapter tab, and set RefreshRate to 60 Hz.

6 6. Click OK.

The application cannot find a file while a PC card is inserted.

Some PC cards when inserted in a notebook that is connected to the docking station may change the drive letters of the disk drives in the docking station. If this occurs, an application you are using may not be able to find files.

To correct this condition perform one of the following steps:

- ❑ Remove the PC card and restart your notebook, and do not insert the PC card while using that application.
- ❑ Change the drive letters of the disk drives of the docking station or of the PC card. Refer to the Windows help files or the manuals of the application to change the drive letters.

Troubleshooting the Modem

My modem does not work.

- ❑ Check that the phone line is plugged into the line jack. See ”Using a Phone Line” for details.
- ❑ Check that the phone line is working by plugging the line in an ordinary phone and listening for a dial tone.
- ❑ Verify that the phone number the program is dialing is correct.
- ❑ Verify that the software you are using is compatible with the notebook’s modem. (All preinstalled Sony programs are compatible.)

My modem connection is slow.

Your notebook is equipped with a 56K/V.90 compatible modem. Many factors may influence modem connection speed, including telephone line noise or compatibility with telephone equipment (such as fax machines or other modems). If you think your modem is not connecting properly to other PC-based modems, fax machines, or your Internet Service Provider, proceed as follows:

- ❑ Have your phone company verify that your phone line is free from any line noise.
- ❑ If your problem is fax-related, check that there are no problems with the fax machine you are calling and that it is compatible with fax modems.
- ❑ If you are having a problem connecting with your Internet Service Provider, check that the ISP is not experiencing technical problems.
- ❑ If you have a second phone line available, try connecting the modem to that line.

Troubleshooting audio

My speakers have no sound.

- ❑ If the built-in speakers are turned off, press Fn+F3 or use the Jog Dial control to turn on the speakers.
- ❑ If the speaker volume is turned to the minimum, press Fn+F4, then press ↓ or ➜ to increase the volume, or you can use the Jog Dial control to control the volume.
- ❑ If nothing is displayed when you press Fn+F3 or Fn+F4, proceed as follows:

  1 Click Start, point to Settings, point to Control panel, then double-click System. The System Properties dialog box appears.

  2 Click the Device Manager tab.

  3 Set the sound device to enable.

- ❑ If your notebook is powered by batteries, verify that the battery packs are inserted properly and that they are charged.
- ❑ If you are using an application that has its own volume control, verify that the volume is turned up.
- ❑ Check the volume controls in Windows®.
- ❑ If you connect external speakers:
  - ❑ Verify that the speakers are properly connected and the volume is turned up.
  - ❑ If the speakers have a mute button, make sure the button is off.
  - ❑ If the speakers are powered by batteries, verify that the batteries are inserted properly and that they are charged.
- ❑ If you have connected an audio cable to the Headphone connector, disconnect the cable.

My microphone does not work.

If you are using an external microphone, verify that the microphone is plugged into the Microphone connector. See ”Connecting an External Microphone” for details.

Troubleshooting the Printer

I cannot print.

- The default setting for the printer port mode is correct for most printers. If you cannot print, try changing the printer port mode. In the Sony Notebook Setup screen, select the Printer tab. If the printer port mode is set to ECP, change it to bi-directional; if the printer port mode is set to bi-directional, change it to ECP. See "Displaying the Sony Notebook Setup Screen" for details on using Sony Notebook Setup.
- Your connected printer may not function after the notebook resumes from a power saving mode. If this occurs, proceed as follows to reset the printer connection:

  Windows® Me Only

  1 Right-click My Computer icon on the desktop, then select Properties.

  2 Click the Device Manager tab.

  3 Select Refresh, then click OK. The printer should function properly.

  Windows® 2000 Only

  1 Click My Computer icon on the desktop, then click on the Control Panel folder.

  2 Click on the Printers folder.

  3 Right-click on the icon of the printer that is malfunctioning, then select Properties to access the Properties window.

  4 Click OK to close the Properties window. The printer should function properly.

Getting Help

Sony provides several support options for your Sony computer. When you have questions about your computer and the preinstalled software, check these sources for answers, in the following sequence:

1 VAIO® Notebook User Guide

This User Guide contains information on product specifications and on how to get the most from your computer, find help, customize your notebook, and solve common problems.

2 Manuals and online help files that may accompany your preinstalled software

Most of the manuals for preinstalled software are located on your hard disk drive as online help files. You can access the online help files from the Help menu in the specific application. A printed manual is available for some applications.

3 VAIO Support Agent

VAIO Support Agent can be accessed from the Windows desktop. Using advanced diagnostic technology, Sony's VAIO Support Agent runs scheduled protections of your applications, network settings, and other important software settings. When your software is protected, you can use VAIO Support Agent to repair software problems by restoring your software to any of the previously protected states.

4 Sony PC Support

This service provides instant access to information on commonly encountered problems. Enter a description of your problem and the Knowledge Database searches for the corresponding solutions online. You can access the Sony PC Support at:
http://www.sony.com/pcsupport

5 Sony Fax-on-Demand

This service, which requires a fax machine or your fax software, provides answers to commonly asked questions. You can use this automated service to request a list of available topics then select the topics that you want to receive. To contact the Sony fax-on-demand service, call:
1-888-4SONYPC (1-888-476-6972)

6 Sony Customer Support

Software support is available free of charge for 90 days after the original date of purchase. You can call and speak with a Sony Customer Support Representative without using your computer by calling:
1-888-4SONYPC (1-888-476-6972)

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